

EFFICACY OF ADJUDICATION AS A DISPUTE
RESOLUTION MECHANISM: THE CASE OF ROAD
PROJECTS IN SRI LANKA

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ABSTRACT

Disputes are unavoidable in construction projects due to their complex nature and could happen at any time. Unresolved disputes may prevent project from completing on time, within the budget and to the desired quality and lead ultimately to project failure. Arbitration has been used as the alternative dispute resolution mechanisms for many years in construction industry. However, over the years, since it is identified that even arbitration has become more time taking and disruptive to work progress, there was a necessity for a quicker dispute resolution mechanism, which helps to flow the work without getting disturbed.

Fulfilling the above need, adjudication has been introduced and incorporated to the construction contracts as interim means of resolving disputes. Although, many researchers and authors identified several steps in order to conduct adjudication successfully, in Sri Lankan context it is experienced that adjudication continuously fail in achieving its objectives.

Therefore, the study was focused on exploring how to enhance effectiveness of adjudication practice and identify the steps to be taken to adopting adjudication as an interim mechanism of dispute resolution in Sri Lankan context.

The study was conducted through a multiple case study. In-depth study was carried out on four selected cases, representing both adjudication successfully and unsuccessfully concluded cases. Case study results were discussed in relation to the steps identified through literature review.

Accordingly, (1) selecting dispute to adjudicate, (2) selecting adjudicators, (3) fair time to be fix, (4) establishing right to review and (5) establishing right to enforce and enforcement procedure of the adjudication process has been identified as failure points of conducting adjudication. Several issues as failure factors of adjudication has been identified in the aforesaid steps which are need to be address to achieve objectives of the adjudication. Identified failure factors were referred to three experts who involved in adjudication and got suggestions to overcome those failure facts.

It is concluded that, in order to achieve the objectives of the adjudication in Sri Lankan construction industry, it is required to adopt full-term/stand-by dispute adjudication board from the commencement of projects, while providing better contractual provision when drafting the contract and establish proper mechanisms by the regulating authorities where it is necessary to address the identified issues.

Key words: Adjudication, Interim dispute resolution mechanism, Road projects

DEDICATION

To those who love smooth running projects....

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LIST OF ABBREVIATIONS

AAA	-	American Arbitration Association
ADR	-	Alternative Dispute Resolution
ANA	-	Authorised Nominating Authorities
BCISPA	-	Building and Construction Industry Security of Payment Act
CBSL	-	Central Bank of Sri Lanka [
CIDA	-	Construction Industry Development Authority
CPD	-	Continuous Professional Development
CUBATG	-	Construction Umbrella Bodies Adjudication Task Group
DAB	-	Dispute Adjudication Board
DAAB	-	Dispute Avoidance/ Adjudication Board
DB	-	Dispute Board
EOT	-	Extension of Time
FIDIC	-	Federation Internationale Des Ingenieurs Conseils
GDP	-	Gross Domestic Product
HGCRA	-	Housing Grants Construction and Regeneration Act
ICTAD	-	Institute for Construction Training and Development
MDB	-	Multilateral Development Bank
MFP	-	Ministry of Finance Planning
NOD	-	Notice of Dissatisfaction
RDA	-	Road Development Authority
UK	-	United Kingdom

1. INTRODUCTION TO THE RESEARCH

1.1. Background

Construction industry is one of a base of a country's economic progress and country's construction sector can be used as an indicator to measure its economic performance (Kheng, 2003). However, construction is one of an extremely unpredictable business (Safinia, 2014). Construction project is unique (Safinia, 2014) and no two construction projects are similar in their plans, specifications, site conditions, construction methods and the disciplines involved (American Arbitration Association [AAA], 2009).

When looking in to the current world, it can be identified that the projects are more complex and more advanced technology is being used (AAA, 2009). The success of construction projects is to complete the projects on time, at a desired quality even though it has complex structure and employ different participants (Tas & Firtina, 2015). Thus, construction industry is highly consisting with disputes and inherent with conflict of interest between parties to contract in the industry more than any other industries (Bekele, 2005).

Disputes are common in a project and if the parties are unable to reach to a resolution within themselves, expensive and time consuming legal procedure need to be started (Kersulienė, Zavadskas & Turskis, 2010). If disputes remain unresolved, it may prevent project from on time completion within the determined cost and desired quality (Tas & Firtina, 2015). Thus, it could be severely affecting to the all participants (Kersulienė et al., 2010) and may eventually lead to the failure of the project (Tas & Firtina, 2015). Further, since the number of construction contract which ends with disputes getting increased, intervention of dispute resolution mechanism is essential (Ren, 2002).

When a dispute occurs, different forms of legal proceedings exist, which can be applied to resolve it (Safinia, 2014). Construction disputes were traditionally resolved

through either in the court by litigation or arbitration (Safinia, 2014), if a binding resolution was required (Finnie & Ali, n.d.). The delay in the settlement of construction dispute through litigation could damage the relationship of the contracting parties and worsen the financial capacity of the weaker party. The delay in the settlement of cases may be due to the difficulty to obtain a date for court hearing, complexity of the cases and delay is unavoidable due to the appeal process itself (Danuri, Ishan, Mustaffa & Jaafar, 2012).

Over years, arbitration, which was expected to be quicker and cheaper, became taking months or years to settle disputes and becoming more expensive (Finnie & Ali, n.d.). Thus, it is identified a dispute resolution mechanism, which is more efficient and effective is needed (Bvumbwe & Thwala, 2011). Further in addressing this problem, adjudication was first directed to be incorporated in all construction contracts in the United Kingdom (Finnie & Ali, n.d.). Objective of incorporating right to adjudication in to construction contracts is providing a quick, low-cost (Maiketso & Maritz, 2012) and impartial means of resolving disputes during projects (Ramus et al., 2007). This was proposed by Latham (1994) in his report “Constructing the Team”, which was welcomed by the industry.

Adjudication is defined in different ways by different authors in their studies. In general usage of the term “adjudicate” is using to mean “to give a ruling” or “to judge” (Maiketso & Maritz, 2012). Maiketso and Maritz (2012) stated, that the definition of adjudication is not universally agreed. However, some specialised characteristics are reflected by those definitions. Accordingly, adjudication can be explained as a process of obtaining an interim decision within a limited time stipulated, which shall be binding on both parties, who shall promptly give effect to it unless and until it shall be revised in next level of Alternative Dispute Resolution (ADR) mechanism, by an independent third party as per the power given by the contract.

Thus, based on the above definition, success of an adjudication can be identified in respect of following criteria, which are objectives of using adjudication as an ADR mechanism in resolving construction disputes.

- Obtaining an interim decision
- Within a limited time stipulated
- Decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in next level of ADR mechanism

Further various researchers in their researches, have identified several advantages of using adjudication as an ADR method. According to Merwe (2009), adjudication is a very fast procedure. Jayasinghe and Ramachandra (2016) stated adjudication is an inexpensive procedure compared to arbitration. Bowes (2007) identified that adjudication can be done any stage of the project without having to wait until the end of the contract.

Disputes are common in construction projects (Kersuliene et al., 2010). Thus, multimillion road development projects which are progressing, are not free from disputes.

In Sri Lanka, construction of roads which includes new construction, rehabilitation and improvement contributes to a significant share in construction industry which invests large sum of both local and foreign funds through one of the biggest public sector employer (Road Development Authority [RDA], 2007; Ministry of Finance Planning [MFP], 2010).

Maritz and Hattingh (2015) pointed out that the countries who have introduced adjudication without the statutory force remain mostly as ineffective dispute resolution mechanism. In Sri Lanka, it is experienced that adjudication is not effectively conduct as a dispute resolution mechanism (Jayasinghe & Ramachandra, 2016) even though adjudication effectively conducted in foreign context (Maritz & Hattingh, 2015; Balogun, Ansary & Thwala, 2017). Further, it is also experienced that large number of

road projects are facing disputes (Getahun, Macarubbo & Mosisa, 2016; Mishra, Mandal & Pant, 2018) worth millions of money (Mehany & Grigg, 2014; Mishra et al., 2018) and contractors struggle surviving with negative impact due to unresolved disputes (Mante, Ndekugri & Ankrah, 2011) while the employers pay millions of money as interest for delaying due payments (Wijekoon, & Attanayake, 2013) Thus, it is clear that if Sri Lankan construction project practitioners continue fail in resolving those disputes efficiently and effectively, those unresolved disputes will lead to huge losses not only to a business entity but also as a whole country.

1.2. Problem statement

FIDIC (1999a & 2010) and ICTAD (2007) standard forms of contracts, which are generally using in Sri Lanka, set adjudication as the method of dispute resolution, which has to be use in first instant. Various researchers in Sri Lankan context has undertook researches in several aspects of adjudication. Ranasinghe and Korale, (2011) has discussed the steps in adjudication process while Abeynayake and Wedikkara (2012) has identified important characteristic of adjudication practice. Jayasinghe and Ramachandra (2016) studied regarding the adjudication practice and its enforceability in the Sri Lankan context. However, there were no recent studies conducted to identify the failure factors of conducting adjudication successfully in order to achieve its' objectives. Therefore, it was a timely necessity to identify how to achieve objectives of adjudication in Sri Lankan context.

Further, it is noted that, RDA as the largest state sector client, who invests billions of public money per year to large scale road development projects, proper adjudication practice is essential in order to better the performance and to avoid massive losses causes due to disputes. Furthermore, there were no studies conducted to identify prerequisites to conduct adjudication successfully in road projects. Therefore, it is a timely necessity to identify the steps to be taken to successfully conduct adjudication as an interim dispute resolution mechanism to road development projects in Sri Lankan context.

1.3. Aim

The aim of the research study is to investigate how to improve the effectiveness of adjudication as an interim mechanism of dispute resolution to Sri Lankan construction projects.

1.4. Objectives

The study was followed through four objectives:

1. To review the concept of construction adjudication and identify its objectives.
2. To review and identify steps to be taken in order to successfully conduct adjudication as an interim dispute resolution mechanism.
3. To explore the issues that have contributed to failure and success factors of the adjudication in the Sri Lankan context.
4. To propose suggestions to overcome identified issues in conducting construction adjudication process.

1.5. Research methodology

A comprehensive literature review, to address the first two objectives, was carried out to examine the concept of construction adjudication, identify its objectives and identify steps followed to successfully conducting adjudication as an interim dispute resolution mechanism. The literature review has done through analysing and synthesising of current body of knowledge such as research papers, journal articles and books.

Yin (2003) explains when a ‘how’ or ‘why’ question is to be addressed about a contemporary set of events, which the researcher has less or no control, case study approach is useful. Further, it is identified that the case study method has ability to examine a case in-depth within its real-life context (Yin, 2004). Therefore, case study was selected to gain in-depth knowledge of real-life practice to achieve the third objectives of the research.

A multiple case studies was done using four already completed adjudication processes used to resolve disputes in major road projects. This was aimed to find out why they have failed or how they have succeeded in achieving objectives of adjudication effectively as an interim dispute resolution mechanism in Sri Lankan context. The case study was intended to explore how to achieve objectives of adjudication effectively as an interim dispute resolution mechanism in Sri Lankan context that is the third objective of the study. Unit of analysis of the study was the adjudication case which used as dispute resolution mechanism to resolve disputes in a construction project.

Semi-structured interviews were conducted with three selected experts who have been involved in adjudication, to fulfil the fourth objective. That was to explore recommendations to address issues identified from the findings of the case studies, which required to improve the adjudication practise in Sri Lanka to conduct adjudication effectively as an interim dispute resolution mechanism.

Content analysis is a widely used data analysis technique for qualitative research (Hsieh & Shannon, 2005). It is decided to select content analysis as the basic data analysis technique of this study since the data produced from the case studies and interview survey were qualitative data.

1.6. Scope and limitations

In order to avoid complexities associated with different project cultures, only foreign funded road improvement projects were selected to study. Large scale projects which over 250 million of contract value was selected for the study.

1.7. Chapter breakdown

The dissertation report is structured in a way to present the research study in a logical flow for better comprehension. Though resembled closely, it does not necessarily follow the chronological order of the research process.

The chapter one provides an overview to the research, which includes background and rationale behind the research. Further, it clarifies the aim, objectives, scope of the research and the methodology that the research is carried out.

The chapter two establishes the theoretical framework; that is, theory behind the success of adjudication as an interim dispute resolution mechanism for construction projects. This analysis and synthesizing existing knowledge related to adjudication theories and steps followed to overcome identified barriers in successfully achieve objectives of adjudication.

The chapter three explains the methodology adopted to carry out this study which includes research design, data collection methods and techniques of data analysis.

Analysis of collected data and presenting of summarized findings of the research are presented in chapter four.

Final chapter concludes findings of the research including recommendations and further research approaches.

2. CONSTRUCTION ADJUDICATION

2.1. Introduction

Purpose of undertaking the study is to analysis and synthesis of existing body of knowledge to identify how to improve the effectiveness of adjudication as an interim mechanism of dispute resolution to Sri Lankan construction projects.

In order to achieve said the purpose of the study, it is aimed to identify and develop a basic understanding of adjudication practice. At the beginning, the study illustrates concept of adjudication and its objectives as ADR mechanism. Further, this study intends to discuss steps had been taken in order to achieve objectives of the construction adjudication in foreign context.

2.2. Construction Industry and road development projects

Construction industry can be used as an indicator to measure the economic performance of a country and is one of a bases of an economic progress of the country (Kheng, 2003). In Sri Lanka it contributes 6% to 8% to Gross Domestic Product (GDP) in last five years (Central Bank of Sri Lanka [CBSL], 2014, 2016 & 2018). Construction industry involves construction of small house to construction of massive cities and large infrastructure developments.

Among construction projects, roads infrastructure is involving with huge amount of investment (Mishra et al., 2018). In Sri Lanka road projects are focused on reduction of traffic congestion by construction, rehabilitation and maintenance of expressways, highways, provincial roads and bridges (CBSL, 2018; Wijekoon, & Attanayake, 2013).

2.3. Construction disputes

Construction is a complex (Tas & Firtina, 2015) and one of an extremely unpredictable business (AAA, 2009). Nature of the construction industry is extremely diverse from other industries (Younis, Wood & Malak, 2008). Not like other manufacturing industries, the product of construction industry is always a trial product with many unique features and unique series of activities in production process (Zou, Zhang & Wang, 2007). Therefore, construction projects have several characteristics such as specific objective, define time period, complex environment, participants from various stakeholders and own goals of the participants which expects to make the most of its own benefits (Getahun et al., 2016).

Further, it is impossible to determine and fix cost, time and quality at the project planning stage. As a result of complexity in technical, economic and environmental aspects, various changes occur to the as-planned work. Thus, construction projects inherit various risks by its nature, which cannot be eliminated (Murdoch & Hughes, 2008; Zou et al., 2007). These risks lead a construction projects to extensive delays and exceed initial cost estimation (Odeh & Battaineh, 2002). The parties submit claims when they feel that the contractual obligations or expectations have not been met and they deserve monetary and/or time compensation (Semple, Hartman & Jergeas, 1994). According to Ren (2002), very few, almost none, construction contracts had been completed without making claims for extension of time for completion or additional payments. Thus, claims are unavoidable in construction projects (Kumaraswamy, 1997) and due to differences in perceptions among the participants of the projects conflicts are inevitable (Cakmak & Cakmak, 2014).

Construction claims are complex and based on sophisticated conditions of contract (Cheung, Wong, Yiu & Kwok, 2008). Therefore, disputes are always questioning whether the claimant entitled for what he asked or not? (Ren, Shen, Xue & Hu, 2011). Thus, unresolved claims create conflicts between parties (Ren et al., 2011). If conflicts are not well managed, they quickly turn into disputes (Cakmak & Cakmak, 2014).

Disputes are one of the main factors which prevent the successful completion of the construction project (Getahun et al., 2016)

According to Ren (2002), it is common that parties to construction contracts fail to settle disputes effectively and efficiently. If not resolved in time, construction disputes, can become very expensive, when considering the opportunity cost, time lost, personal cost and finance lost (Bvumbwe & Thwala, 2011). According to Jaffe and Mchung (2010), disputes can have disastrous consequences to the parties, if being resolved long after it arose. Construction disputes happen fairly often and could happen at any point in time during the design or construction phase of the project (Hall, 2002 cited in Assah-Kissiedu, Fugar & Badu, 2010).

As Assah-Kissiedu et al. (2010) stated, disputes occur because construction projects by its' nature bring together a wide variety of people who are un-known to each other and has different set of objectives. Construction disputes vary in nature, size, and complexity, but they all have a common feature that they are costly both in terms of time and money as well as accompanied with the destruction of individual's and good working relationships (Assah-Kissiedu et al., 2010; Mishra, Mandal & Pant, 2018). According to Harmon (2003), any of disputes creating factor can disrupt a project and lead to complicated litigation or arbitration which breaks the parties' communication and relationship. The court proceedings are usually a negative and costly experience for all parties involved (Chen, 2008). Thus, parties' failure in settling their disputes "in an effective, economical and timely manner" (Barrie & Paulson, 1992 cited in Ren, 2002, p.17), progress of work gets disrupted and lead to severe losses in both direct and indirect ways. Thus, a dispute can jeopardize objectives of both project and parties involved in causing damage to the industry in broader sense (Ramus, Birchall & Griffiths, 2007).

As the number of construction contracts which ends with disputes getting increased, intervention of efficient and effective dispute resolution mechanism is essential (Bvumbwe & Thwala, 2011; Ren, 2002).

Accordingly, same as other sectors road projects also often faces to many uncertainties (Perera, Dhanasinghe, & Rameezdeen, 2009). However due to involvement of large-scale investments of public money and necessity of complicated and sophisticated contracts road construction contracts have more tendency to create various kinds of disputes (Getahun et al., 2016) at the implementation of the project (Mishra et al., 2018). Therefore, in Sri Lankan context efficient and effective dispute resolution mechanism is essential in respect of road development projects.

2.4. ADR Methods in construction dispute resolution

ADR refers to a wide range of dispute resolution mechanisms, which share one common feature that is differ from litigation (Stone, 2004). Instead of going to courts, parties move to ADR mechanisms, which protect their privacy, time and cost (Murdoch & Hughes, 2008). Worldwide in construction projects to resolve disputes various ADR mechanisms such as arbitration, adjudication, expert determination, mediation and negotiation are used. However, in Sri Lankan context, standard forms of contracts used two or three tiered dispute resolution process, which is limited to combinations of negotiation, adjudication and arbitration (FIDIC, 1999a, 2010, 2017 & ICTAD, 2007). Stone (2004) stated that different ADR mechanisms use in today has unique values and is useful in certain types of disputes and most standard forms of contract also agree with it. While large scale, foreign funded projects use three tiered dispute resolution process, Dispute Adjudication Board (DAB) or Dispute Avoidance/ Adjudication Board (DAAB), amicable settlement and arbitration (FIDIC, 1999a, 2010 & 2017), simple and small-scale projects uses two tiered dispute resolution process adjudication and arbitration (FIDIC, 1999b). However, it can be seen almost all construction contracts identified necessity of adjudication.

2.5. Construction adjudication

In general usage of the term “adjudicate” is using to mean “to give a ruling” or “to judge” (Maiketso & Maritz, 2012). Objectives of construction adjudication are not limited to meaning of the term. Construction adjudication evolves to reach a fair, inexpensive decision quickly to their dispute which is immediately binding the parties (Maiketso & Maritz, 2012) in order to facilitate the progress of the work and avoid damaging to relationships (Ramus et al., 2007).

Adjudication is defined in different ways by different authors in their studies. Bentley (1992) defined adjudication as “a procedure where power is given by the contract to an independent third party to make interim decisions on disputes between the parties arising under the contract” (p.187). Another author defines adjudication as a process “where a third neutral party gives a decision that can be binding on the parties in dispute unless or until revised in arbitration or litigation” (Gould, 1998, p.430). Maritz (2009) stated that “adjudication is often defined by reference to what it is not. Adjudication is not arbitration or litigation, nor is adjudication a decision by the Engineer / Project Manager. The adjudication is completely independent and is paid by both parties” (p.79).

Maiketso and Maritz (2012) stated definition of adjudication is not universally agreed. However, some specialised characteristics are reflected by those definitions. Accordingly, adjudication can be explained as a process of obtaining decision within a limited time stipulated, which is binding on the parties unless or until revised by next level of ADR mechanism, by an independent third party as per the power given by the contract. Further, Jayasinghe and Ramachandra (2016) explained adjudication as a process which disputes are referred to a neutral third party for determination where the decision of the adjudicator may be temporarily binding, pending a finally determined by other means resolution methods. Accordingly, with reference to the explanation given by Maiketso and Maritz (2012) and Jayasinghe and Ramachandra (2016), adjudication can be identified as an interim means of dispute resolution mechanism

which the decision of the adjudicator may be binding on the parties unless or until finally determined.

2.5.1. Types of construction adjudication

As Jayasinghe and Ramachandra (2016) stated, two types of construction adjudication are provided in the FIDIC contracts as full-term/standing and ad-hoc dispute adjudication. Further, as Abenayake and Weddikara (2013) explained that in full-term adjudication, member/s are appointed at the beginning of the contract while in ad-hoc adjudication, member/s are appointed after the dispute has arisen.

2.6. Advantages and disadvantages of adjudication

Even though, there are many advantages in adjudication as an ADR method, several drawbacks have been identified in implementing adjudication as a dispute resolution mechanism. Various researchers have identified and highlighted both advantages and disadvantages of adjudication in their researches.

Adjudication is a very fast procedure (Merwe, 2009), which resolves a dispute in a shorter time period than arbitration (Jayasinghe & Ramachandra, 2016). They have further stated that even though adjudication is a faster procedure, there is a possibility of not receiving fair determination or receiving wrong decision due to limited time not permitting the adjudicator to reach the bottom of the dispute. According to Bowes (2007), in practice the majority of adjudications exceed the standard period plus allowable extension period timescale.

As Jayasinghe and Ramachandra (2016) stated adjudication is an inexpensive procedure compared to arbitration. However, currently, it is identified that adjudication is becoming as expensive as litigation and arbitration (Bowes, 2007). As per Mwenda (2006), no formal hearing in adjudication and no legal representation required in adjudication. Mwenda (2006), pointed out it is one of major advantages of

the adjudication. However, he further highlighted major disadvantages as, due to the less formal nature and less legal representation, adjudicator may use his own initiatives and have higher possibility in missing important legal facts.

Another advantage identified by Bowes (2007) is that adjudication can be done any stage of the project and parties have a right to seek adjudication “at any time” without having to wait until the end of the contract. However, adjudication is not suitable to resolve “any dispute” (Gorse, Ellis & Hudson-Tyremen, 2005). Claims of an extension of Time for Completion may not be suited to decide by adjudication since the adjudication decision is not final and can be revised. Further, adjudication might not effective for complex and technical disputes, which cannot revise once it was implemented (Gorse, Ellis & Hudson-Tyremen, 2005). However, worldwide adjudication is really effective on payment disputes (Bowes, 2007).

According to Merwe (2009) even though, the adjudication decision is contractually binding, not directly enforceable and only binding till finally resolved by other settlement procedure. However, Jayasinghe and Ramachandra (2016) highlighted, adjudication decision can be contractually binding on the parties until and unless revised and result will be implemented in next payment cycle which is the key benefit of implementing the adjudication. Further, Latham (1994) pointed out, temporarily binding nature of adjudication decisions is not a drawback since, it may be the ideal means of maintaining cash flow and avoiding financial hardship to the claimant.

Further, Jayasinghe and Ramachandra (2016) pointed out in a situation where parties disagree with the adjudicator’s decision, they are able to reach to an amicable settlement based on adjudicator’s decision or ability to collect evidence for future dispute resolution methods.

2.7. Types of adjudication

Once a dispute arose, as the dispute resolution mechanism, adjudication can begin depending on the applicable legislation or contractual provisions. Based on the

governing legal provision, adjudication falls in to two main categories as statutory adjudication and contractual adjudication (Ranasinghe & Korale, 2011; Wong, 2011). If the adjudication governed by legislation, such as, act or ordinance, falls under statutory adjudication and where adjudication govern under the condition of contract in situation which no legislation available falls under contractual adjudication. In contractual adjudication, power to obtain interim decision via adjudication is given by the agreement between the parties (Wong, 2011).

Adjudication is a process by which disputes are referred to a neutral third party for a decision that may be temporarily binding, pending a final determination by other resolution methods (Maiketso & Maritz, 2012; Jayasinghe & Ramachandra, 2016).

2.8. Legal provisions for adjudication

Statutory adjudication was born out in United Kingdom introducing Housing Grant Construction and Regulation Act (HGCRA) of 1996. The act was introduced recognizing the importance of resolve disputes promptly and appropriately to allow money to transfer from one party to other as quickly as possible (Jaffe & Mchung, 2010). Thus, it is so closely associated with legislation of the “Security of Payment” and has been characterised by the maxim “pay now, argue later” (Uff, 2005 cited in Maiketso & Maritz, 2009). Salem (2015) stated that, the prime object of statutory adjudication was to improve cash flow in the construction industry while establishing an efficient and speedy process of dispute resolution. Further, Lam (2007) and Balogun et al (2017) shows, statutory adjudication has evidently success in England, Wale, Australia, New Zealand and Singapore.

In Sri Lanka there is no legal provisions established for conducting construction adjudication. Therefore, this study intends to discuss how legal provisions provide opportunities to achieve objectives of the construction adjudication in some other countries which practice construction adjudication successfully.

United Kingdom

According to Section 107 of HGCRA 1996, parties' contractual right to adjudicate is limited to disputes arising out of written construction contracts.

Further, Section 108 of the Act provides contract parties' statutory rights to refer any dispute/s arising under the contract for adjudication. Section 108 further explains in detail regarding the aspects of time, procedure, binding nature of the decision and immunity of the adjudicator. As per Section 108 (3) of the Act, the decision of the adjudicator is binding until the dispute is finally determined by legal proceedings, by arbitration or by mutual agreement.

The decision is "temporary binding" on parties and the court has to intervene in case of either party do not abide by the decision of adjudicator. However, the parties can agree on to accept the decision of the adjudicator as finally determination for the dispute. Further according to Section 112, in the event of a sum due under a construction contract is not paid in full by the final date for payment, the innocent party is given the right to suspend performance of his obligations under the contract to the party.

Singapore

Introduction of adjudication into Singapore was done under the Building and Construction Industry Security of Payment Act (BCISPA) of 2004. According to Sections 2 and 4, the Act provides a framework for statutory adjudication and preserved the right of the parties to refer any payment dispute arisen under any written contract.

According to Section 21, the decision made by the adjudicator in adjudication is binding on the parties, but it is not final, unless or until,

- a) leave of the court to enforce the adjudication determination is refused;
- b) the dispute is finally determined by a court or tribunal or at any other dispute resolution proceeding; or

c) the dispute is settled by agreement of the parties.

Further, Sections 18 and 19 of the Act is providing mechanism to allow party aggrieved by the determination of the adjudicator for review the determination of the adjudicator. Respondent is permitted to lodge an application for the review of within seven days of the determination. The same procedure will apply to appoint different adjudicator or a panel of three review adjudicators to review the earlier determination. However, the Act requires respondent to pay an adjudicated amount to the claimant before lodge any application for review.

The Act provides several measures to enforce payment of adjudicated amount and it is established in Part V. Any adjudication determination made under the Act can be enforced in the Court with the leave of Court to same effect as a judgment or an order of the Court.

Further, in case of respondent fails to pay the adjudicated amount to claimant within the stipulated time, the claimant is entitled to serve a notice to the respondent on his intention to suspend work under Section 23 and suspend the construction work under Section 26.

New South Wales, Australia

The BCISPA of 1999 was introduced to ensures that, a contract party is entitled to receive a progress payment is by granting a statutory entitlement to such a payment.

The Act introduced statutory rights for claimants a form of rapid adjudication, aiming a cost-effective interim decision subject to final resolution by arbitration or litigation. According to Section 7, Act applies to any construction contract, whether written or oral, or partly written and partly oral, and so applies even if the contract is expressed to be governed by the law of a jurisdiction other than New South Wales. However, as per Section 17, the Act applies only to the disputes born out of payment claim.

The adjudication determination must be in writing and includes the reasons for the determination. The respondent is obligated to honour the determination. According to Section 25, in case of failure by the respondent, the claimant entitled to file a case regarding such failure in any court of competent jurisdiction along with adjudication certificate. Further, in such failure pursuant to Section 24, claimant entitled to serve a notice to the respondent on his intention to suspend work. Under Section 27, the Act establishes the claimant's right to suspend the construction work carrying out at the site.

2.9. Contractual provisions for adjudication

Adjudication is recognized as an ADR mechanism by recently enacted Construction Industry Development Act of Sri Lanka No.33 of 2014. In Section 51(1) of the act mentioned that; "a party to any contract relating to an identified construction work, if unable to settle any dispute by conciliation or mediation by the Authority, may refer such dispute for adjudication" (p.37).

However, in Sri Lankan context, there is no statute to govern construction adjudication. Thus, legal authority or legal recognition for an adjudicator's decision is not provided by a statute (Abeynayake & Dharmawardhana, 2015), but has to empower by the parties from their contract (Ranasinghe & Korale, 2011). Contractual adjudication is a pre-agreed mechanism in the contract outset to resolve or prevent dispute between the parties from escalating (Salem, 2015).

In standard forms of contracts generally using in Sri Lanka set adjudication as the preliminary method of dispute resolution (FIDIC, 1999a & 2010; ICTAD, 2007). Both FIDIC and ICTAD gave parties, right to refer their disputes to adjudication via general conditions of contract. FIDIC (1999a) has established right to refer adjudication via Sub Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*]. That is,

"If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the

Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, either Party may refer the dispute in writing to the DAB for its decision.."

In ICTAD (2007) Sub Clause 19.2 stated that,

"Any dispute of whatever nature arising out of or in relation to this agreement shall in the first instance be attempted to be resolved by way of adjudication in accordance with the adjudication procedure set forth in Clause 19.3"

FIDIC (2017) Sub Clause 21.4 [*Obtaining DAAB's Decision*] established the right to refer adjudication as,

"If a Dispute arises between the Parties then either Party may refer the Dispute to the DAAB for its decision..."

Where dispute is defined as,

"Dispute" means any situation where:

- (a) one Party makes a claim against the other Party (which may be a Claim, as defined in these Conditions, or a matter to be determined by the Engineer under these Conditions, or otherwise);
- (b) the other Party (or the Engineer under Sub-Clause 3.7.2 [*Engineer's Determination*]) rejects the claim in whole or in part; and
- (c) the first Party does not acquiesce (by giving a NOD under Sub-Clause 3.7.5 [*Dissatisfaction with Engineer's determination*] or otherwise)"

However, FIDIC (2017) Sub Clause 21.4 [*Obtaining DAAB's Decision*], further stated that if the subject matter of the Dispute is related to the Engineer's Determination and is not referred to the DAAB within period of 42 days of serving Notice of Dissatisfaction (NOD) with the Engineer's Determination, the served NOD shall be lapsed and no longer valid. In such a case same effect where no NOD served has been applied, that is the Engineer's Determination shall become as final and binding on the parties. Thus, no right to refer the dispute to the DAAB and failure to honouring the

final and binding determination of the Engineer can be directly refer to the Arbitration similar as to failure to comply with DAAB's decision.

Further, both FIDIC and ICTAD provides procedures to be followed in appointing DAB or Adjudicator. Sub Clause 20.2 [*Appointment of the Dispute Adjudication Board*] of FIDIC (1999a & 2010) and Sub Clause 21.1 [*Constitution of the DAAB*] of FIDIC (2017) recommended that the DAB or DAAB, shall be consisting of either one, or three members and shall be appointed at the outset of the contract. However, ICTAD Sub Clause 19.3 [*Procedure for Adjudication*] mentioned only about appointing single adjudicator, who shall be a professional with experience relevant to the Works and in the interpretation of contractual documents.

Regarding the binding nature of adjudication decision, FIDIC (1999a & 2010) Sub Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*] clearly stated that within 84 days of receiving such reference or such other time agreed by the parties, DAB shall give its' decision and such "decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised" in next tier in dispute resolution process. Newly introduced FIDIC (2017) Sub Clause 20.4.3 [*The DAAB's decision*] also stated same regarding time period for DAAB to deliver its decision and binding nature of the decision, but "unless and until it shall be revised" part not mentioned in the Sub Clause. In addition to that, FIDIC (2017) mentioned that, the NOD is served with related to the part of the DAAB's decision, the part which the NOD is not being served shall become final and binding on both Parties. Further FIDIC (2017) clearly mentioned that the arbitrator/s have no power to open up, review and revised the final and binding determination. Regarding the binding nature of ICTAD, it is stated that "the Adjudicator shall give the determination in writing within 28 days or such other period of receipt of a notification of dispute". The decision of the adjudicator shall be formed final and binding if neither party refers the dispute to arbitration within 28 days of adjudicator's determination. Thus, ICTAD is silent on temporary binding nature and failed to establish objectives of adjudication by avoiding

addressing binding status of decision “until it shall be revised” in next tier in dispute resolution process.

Accordingly, newly introduced FIDIC (2017) identifies and provide several other contractual provisions in addition to the contractual provisions already included in the FIDIC (1999) to validate the DAAB decision. In the event of the party fails to comply with the DAAB decision, whether the decision become binding or final and binding, either party given power from the Contract to refer the failure directly to the arbitration and request a summary award as an interim award or a provisional measure.

2.10. Adjudication process

Bvumbwe and Thwala (2011) stated that the majority would prefer adjudication as the priority in resolving a dispute before arbitration. However, Maiketso and Maritz (2012) stated that, clients, consultants and contractors also have limited understanding of the process and how best to make use of it. Thus, having a thorough knowledge of adjudication procedures, practice and implementation now become essential for any construction professional in a construction project (Merwe, 2009).

Adjudication is a process of obtaining an interim decision given within a limited time stipulated by an independent third party as per power given by the contract (Bentley, 1992), which is binding on the parties (Maiketso & Maritz, 2012) unless or until revised by next level of ADR mechanism (Gould, 1998).

Different researchers identified stages of adjudication process in different ways. Merwe (2009) discussed adjudication process in five stages, which are (1) notice of adjudication, (2) selection and appointment of the adjudicator, (3) referral of the dispute to the adjudication, (4) conduct of the adjudication and (5) the adjudication decision. These are stages followed in sequence within the adjudication stage. Further, Ranasinghe and Korale (2011) discussed adjudication process in six stages including above five stages and one more addition. Authors have additionally identified a stage

at the beginning of the process and named it as “before the adjudication”. Further according to standard forms of contracts seven stages can be identified. That is further to above six stages “giving effect to adjudication decision” can be identified as the last stage of adjudication (FIDIC, 1999a, 2010 & 2017; ICTAD, 2007).

2.11. Steps of a successful adjudication

Success of adjudication as an ADR mechanism can be identified based on its definition and intention of providing provisions to adjudicate in standard conditions of contract. Accordingly, success of adjudication is identified as fulfilment of (1) obtaining the decision as an interim measure (2) within a limited time stipulated and (3) which shall be binding on both parties, who shall promptly give effect to it unless and until it shall be revised in next level of ADR mechanism (FIDIC, 1999a; 2010 & 2017).

Steps of a successful adjudication are identified by various researches and standards (Construction Umbrella Bodies Adjudication Task Group [CUBATG], 2017; Merwe, 2009; Ranasinghe & Korale, 2011; Wong, 2011; Maritz & Hattingh, 2015; Gorse et al, 2005; Agapiopu, 2013) while other researchers (Bowes, 2007; Jayasinghe & Ramachandra, 2016; Skaik, Coggins & Mills, 2015b) study on drawbacks of adjudication procedures, practice and implementation. Here it is concerned on steps to be taken in order to complete each stages of adjudication successfully as indicated in the Table 2.1.

Table 2.1: Stages vs steps

Stage	Step	Identified by
Before the adjudication		CUBATG (2017),
Notice of adjudication	Establishing right to adjudicate Selecting dispute to adjudicate	CUBATG (2017), Gorse et al, 2005; Merwe, 2009; Ranasinghe & Korale, 2011; Wong, 2011
Selection and appointment of the adjudicator	Selecting adjudicators Appointment of adjudicators	CUBATG (2017), Skaik et al, 2015a Skaik et al, 2015b
Referral of the dispute to the adjudication	Fair time to be fix Permitting balanced between Parties	CUBATG (2017), Agapiopu, 2013; Skaik et al., 2015a & 2015b
Conduct of the adjudication	Giving powers to the adjudicators	CUBATG (2017)
Adjudication decision.	Correction of errors Establishing right to review	CUBATG (2017), BCISPA (1999 & 2004); Agapiopu, 2013
Giving effect to adjudication decision	Establishing right to enforce and enforcement procedure	CUBATG (2017), Skaik et al., 2015a & 2015b Maritz & Hattingh, 2015

2.11.1. Step 1: Establishing right to adjudicate

CUBATG (2017) pointed out establishing right to adjudicate is as first step to be followed before start adjudication. Parties shall check whether they have right to

adjudicate. It can be either given via statute or contract made between parties (Ranasinghe & Korale, 2011; Wong, 2011).

In statutory adjudication CUBATG (2017) pointed out, the parties should check whether they have right to adjudicate as per provisions given in the Act. CUBATG (2017) further explains, that Section 108 of the HGCRA of 1996 provides the right to parties to almost all construction contracts to refer any dispute arising under the contract to adjudication at any time. However, following questions needed to be answer when checking right to adjudicate. Is their contract falling into defined contracts which can referred to adjudication by the Act? Are there any exclusions from the Act?

In case there is no statute to govern the construction adjudication, it has to empower by the parties by their contract (Ranasinghe & Korale, 2011). Contractual adjudication is a pre-agreed mechanism in the contact by parties (Salem, 2015). There should be well drafted clause or separate agreement between the parties which gives right to refer their matter to adjudication. FIDIC (1999a) Sub-Clause 20.4 [*Obtaining Dispute Board's Decision*] state that,

“If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, either Party may refer the dispute in writing to the Dispute Board (DB) for its decision”

Further, FIDIC (2017) Sub Clause 21.1 [*Constitution of the DAAB*] established the right to refer adjudication as “Disputes shall be decided by a DAAB in accordance with Sub-Clause 21.4 [*Obtaining DAAB's Decision*].”

Thus, standard forms of contracts provide possibility to refer wider range of disputes to adjudication as a first dispute resolution mechanism.

2.11.2. Step 2: Selecting dispute to adjudicate

Many researchers identified that all disputes are not suitable to refer to adjudication (Gorse et al, 2005; Merwe, 2009; Ranasinghe & Korale, 2011; Wong, 2011). However, standard forms give opportunity to refer “dispute of any kind whatsoever arises between the Parties in connection with, or arising out of, the Contract” to adjudication (FIDIC, 1999a & 2010). Further, in FIDIC (2017) also gives the same idea of referring any kind of dispute to be referred to adjudication by defining the term “dispute” clearly to cover any kind of dispute.

According to Ranasinghe and Korale (2011) disputes which (1) comprise of several issues, (2) involving in complex legal issues, (3) require a decision but the consequences of the decision cannot be reversed (instruction, matters related to quality, entitle to terminate), and (4) tax matters which the solution or the decision is with some other person or authority are not suitable to be resolved by adjudication. This is supported by Merwe (2009) and Wong (2011). It was explained adjudication is an ADR method, which developed to resolve relatively small, simple and less complicated disputes between the parties (Merwe, 2009). Further, Wong (2011) stated that, most disputes which arise at the completion stage of projects are too complex to provide fair adjudication within the agreed time limit of the contract. However, according to Raji (2015), currently there has been increasing trend which large and complex disputes such as delay, disruption and acceleration claims being referred to adjudication for settlement.

Further Gorse et al. (2005) stated that, if an extension of Time for Completion is wrongly awarded, damages could be recovered later tier, but the lost time can never be recovered. Further, the authors explained, proving delay can be complicated and may not be suitable to standard adjudication process which allows limited time period. Thus, the authors in the view that, the dispute in respect of extension of Time for Completion claim may not be suited to adjudication.

2.11.3. Step 3: Selecting adjudicators

Selecting a suitable adjudicator is identified as a key success factor for successful adjudication (Skaik, Coggins & Mills, 2015a). In order to facilitate parties to select a suitable adjudicator, important data regarding available adjudicators should be maintained and published by a governing body (Jayasinghe & Ramachandra, 2016).

Skaik et al., (2015a) proposed to expressly mention minimum required experience of an adjudicator to be eligible to adjudicate complex claims. In order to facilitate that a grading scale for adjudicators depending on their qualifications, experience and skills, should be maintained. This is supported by Jayasinghe and Ramachandra (2016). Accordingly, adjudicators are categorized in to adjudicator (lowest), advanced adjudicators and senior adjudicator (highest), in which complex or large claims can only be decided by a senior adjudicator.

Authors proposed that, performance of the adjudicator shall be closely monitored and unsatisfactory performance shall be formally recorded. A complaints system with serious investigation should be carried out with implementing disciplinary action as formal warning or suspension on non-performing adjudicators (Skaik et al., 2015a).

Further there are challenges, which currently face in application of adjudication since most of adjudicators are trained and/or experienced not in adjudication, but other forms of dispute resolution mechanisms (Maiketso & Maritz, 2012). It was proposed to have a system for compulsory Continuous Professional Development (CPD) for adjudicators (Jayasinghe & Ramachandra, 2016; Skaik et al., 2015a). Further, it was revealed “adjudication training should include a compulsory legal training for adjudicators who do not possess appropriate legal qualifications, while lawyers with no proven construction experience should have another compulsory training in construction technology, programming and quantity surveying” (Skaik et al., 2015a, p.99).

2.11.4. Step 4: Appointment of adjudicators

The procedure of an adjudicator is being appointed may have a direct impact on the quality of the outcome (Skaik et al., 2015b). The authors pointed out drawbacks in appointment of adjudicators by Authorised Nominating Authorities (ANAs) which leads to unsuccessful outcome from adjudication.

- a) Profit-driven ANAs are biased towards claimants
- b) Adjudicator shopping; claimant or its representative demands ANA to either appoint or not appoint certain adjudicators if not the claimant would refer its adjudication application to another ANA
- c) Some ANAs maintain unacceptable relationship with claim preparers; claim preparers are recommended to by a particular ANA with the expectation of that preparer will direct the adjudication application to the ANA or expecting receiving future appointment to the ANA for adjudication

Such matters clearly breach one of the fundamental principles, the natural justice, by the decision-maker conducts themselves in a bias manner (Skaik et al., 2015b). Thus, it is clear that fair and impartial ANAs are key factor behind the successful adjudication process.

2.11.5. Step 5: Fair time to be fix

When conducting adjudication, it is identified four parallel steps to be taken by the parties in order to conduct a successful adjudication (Agapiopu, 2013; Skaik et al., 2015a & 2015b). First is conduct of adjudication should be subjected to the agreed time period. The adjudicator needs to have the control of the proceeding and need to establish a procedure and time frame to follow. Adjudication is required to be concluded within the given or agreed time period. Generally, equal time frame is allowed in adjudication process irrespective of the complexity of the dispute (FIDIC, 1999a; 2010 & 2017).

However, it is identified some disputes, especially, which arise at the completion stage of the project are too complex to determine fairly within the agreed time limit (Wong, 2011). Skaik et al. (2015a) explains that in dispute resolution there is a trade-off between justice and efficiency. In order to achieve the favourable adjudication process in large or complex claim, a time table need to be set out to allow sufficient time to meet the basic and substantial requirements of satisfactory dispute resolution system. If not, the court may have quashed the adjudication determination based on failing to maintain natural justice or failure to exercise powers in good faith since the adjudicator have inadequate time table which not enough to meet the key requirements for a fair determination.

The adjudicator required to go through huge mass of material, which may include legal submissions, delay analyses, site inspections, photographs and technical expert reports, to produce a reasoned conclusion, in a very short period of time. Thus, the determination of the adjudicator who has to consider a huge amount of submissions in an insufficient timeframe, performing very real risk job may tend to breach natural justice or requirement of good faith and will be subjected judicial challenge.

Therefore, it is proposed to have different time frames based on the complexity of the dispute which avoid the danger of “one size fits all” approach (Skaik et al., 2015a).

2.11.6. Step 6: Permitting balanced between parties

Next step to consider when conducting an adjudication is explained by Skaik et al. (2015a) as procedural fairness, which means the impartiality and independence of the of the decision maker allowing each party to present their defensive arguments and be fairly heard. Further, stated that reasoned conclusion, on which grounds the parties have won or lost, should be received to the parties to be felt that their arguments have been considered. However, it is noted that although claimant had enough time to be prepared with his claim, the respondent has limited time to reply for the claim. Thus, it can be damage the quality of the adjudicators decision (Skaik et al., 2015a). Thus, it

is suggesting to permitting balanced between period of time allowing for the referring party and the respondent.

2.11.7. Step 7: Giving powers to the adjudicators

The adjudicators may not have sufficient or required knowledge to determine complex claim, which involve various sophisticated technical or legal issues. As Skaik et al. (2015a) stated, in such instants the adjudicators may have inquisitorial powers to engaging experts and receiving and considering oral evidence.

Adjudicators may subject to many restrictions on the way to the determination. The adjudicators are limited to consider the documents submitted by the parties in making the determination. These restrictions imposed to adjudicators may have potential to negatively impact upon the quality of adjudication decisions. Australian legislations give adjudicator the authority to request further submissions from the parties, engage an expert or arrange for testing unless all parties object (Skaik et al., 2015b).

2.11.8. Step 8: Correction of errors

Same as in arbitration, BCISPA (1999 & 2004) suggest that correction of errors in adjudication decision is required. This was identified as last step to be taken at the conducting of adjudication. In order to correction of errors draft adjudication decision suggested to be issued to parties for comments prior to formally issued (Agapiopu, 2013). This would allow correcting obvious straightforward mistakes as arithmetical error, typing error, wrong names of the parties but not be core part of the decision (BCISPA, 1999 & 2004). According to Agapiopu (2013), contract has to provide provision in writing allowing the adjudicator to correct arithmetical and/or typing errors arising by mistake.

2.11.9. Step 9: Establishing right to review

As Skaik et al. (2015a) reveals, one of prime idea in adjudication is establishing a fast track dispute reviewing system in the contract. However, losing party may be dissatisfied with the given decision. The party whom against the decision made have to promptly honour the decision, but can serve notice of dissatisfaction expecting to appeal to next level after the completion of the project (FIDIC, 1999a; 2010 & 2017).

According to Skaik et al. (2015a & 2015b) courts generally uphold adjudicator's decisions which are not containing jurisdictional errors or adjudicators go beyond the boundaries of their jurisdiction. Thus, as long as adjudicator has been duly appointed, it will be very difficult for a dissatisfied party to quashed adjudication decision even if the adjudicator has determined the issues in wrongful manner. As a result, adjudication decision containing errors may have been upheld by the courts accordingly. Loosing party have no option other than refer the matter to arbitration or litigation for final settlement (Skaik et al., 2015b). In this case, that party may have to wait longer period to implement it. By identifying this issue, it was proposed to have a fast track internal review system of the merits of adjudication decisions (Skaik et al., 2015b).

However, beside from judicial review, there are limited rights to adjudication review provided in legislations (Skaik et al., 2015a & 2015b). The adjudication decision can be subject to review on the basis that the decision satisfies the given requirement to review. The review is carried out by a second adjudicator/s appointed. The adjudication decision may review on the basis of its merits (Skaik et al., 2015a & 2015b).

Review system improves the accessibility, certainty, accuracy and increase the confidence in the final outcome, while acting as a safety net. This will lead to avoiding lengthy and expensive legal proceedings in arbitration or court on the same dispute (Skaik et al., 2015a & 2015b). Authors pointed out these provisions will improve the

procedural fairness, help adjudicators to understand complex legal or technical matters soundness and reliability of the adjudication outcome.

Selecting decision to review

Merits reviewing process implemented in Singapore and Australian statutory adjudication regimes (Skaik et al., 2015a & 2015b). However, the authors further stated that the review should be limited to complex claims which shall be defined earlier.

Agreeing to merits reviewing procedure

Merits reviewing procedure of an adjudicator's decision shall be agreed by the parties. The term and condition for the review adjudicators' can be agreed as same as the former process in the outset of the contract (Skaik et al., 2015a).

As example, Skaik et al. (2015a) propose followings,

- a) "Review adjudicator should be selected from the next higher category in the grading scale. A panel of adjudicators should be appointed if the original decision was issued by a senior adjudicator with the highest grade.
- b) The review adjudicator(s) must issue the decision within an equivalent timeframe to that of the original adjudicator under the legislation." (p.101)

2.11.10. Step 10: Establishing right to enforce and enforcement procedure

Enforcement of the adjudicator's decision is critical to the success of adjudication (Maritz & Hattingh, 2015). However, authors have pointed out according to experiences in countries who have introduced adjudication, adjudication without the statutory force is not effective. Maritz and Hattingh (2015) further pointed out before introduces an act, adjudication remain as mostly ineffective dispute resolution mechanism.

However, Ndekugri and Russell (2005) stated that in absence of statutory adjudication, it is accepted most appropriate method to enforce an adjudication decision is to sue other party on basis of breach of contract as failure to comply with the adjudication decision. In order to establish contractual rights, a carefully drafted contractual provision for adjudication should be incorporated in the contract. FIDIC1999a and 2010 provides provisions for establish contractual rights in Sub Clause 20.4 [*Obtaining Dispute Board's Decision*] as “the decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award...” and FIDIC (2017) Sub Clause 21.4.3 [*The DAAB's decision*] provides provisions for establish contractual rights as “the decision shall be binding on both Parties, who shall promptly comply with it whether or not a Party gives a NOD with respect to such decision...”, but without stating “unless and until it shall be revised in an amicable settlement or an arbitral award...”. In addition to that FIDIC (2017) mentioned that the NOD is served with related to the part of the DAAB's decision, the part which the NOD is not being served shall become final and binding on both Parties. Further, FIDIC (2017) clearly mentioned that the arbitrator/s have no power to open up, review and revised the final and binding determination.

2.12. Summary

Adjudication is an ADR mechanism set by parties to contracts in order to obtain an interim decision within a limited time agreed, which is binding on the parties unless or until revised by next level of dispute resolution.

Main objective of construction adjudication is to reach a quick decision to a dispute, which is immediately binding the parties in order to avoid dispute getting disrupts the progress of the work. However, it is experienced that construction adjudication continuously fails in achieving its objectives in Sri Lankan context. Therefore, a comprehensive literature review was carried out to identify steps to be followed to successful conclusion of construction adjudication and identified performance enhancing possibilities of construction adjudication in adjudication process.

According to available knowledge ten steps were identified, which has to be taken in order to complete adjudication process successfully and that are (1) establishing right to adjudicate, (2) selecting dispute to adjudicate, (3) selecting an adjudicators, (4) appointment of an adjudicator (5) fair time to be fix, (6) permitting balanced between parties, (7) giving powers to the adjudicators, (8) correction of errors, (9) establishing right to review and (10) establishing right to enforce.

3. RESEARCH METHODOLOGY

The chapter three is aimed to establish the methodology, which was used to achieve the aim of the research; to investigate how to improve the effectiveness of adjudication as an interim mechanism of dispute resolution to Sri Lankan construction projects. The chapter three explains the way of study aimed to flow forward with justification for the selections. Further, it describes data collection and data analysis methods adopted in carrying out this study, in respect of answering research question.

3.1. Research philosophy

The method of answering to a research problem is threefold one of exploratory, descriptive and explanatory (Saunders, Lewis & Thornhill, 2009). The objective of the descriptive method is to describe an accurate profile of persons, events or situations. An exploratory study uses to find out what is happening by asking questions and assessing occurrences and explanatory approach was using to establish causal relationships between different variables (Saunders et al., 2009)

The study was aimed to answer the research question “how to improve effectiveness of adjudication and adopting adjudication as an interim mechanism of dispute resolution to Sri Lankan construction projects” through seeking what is happening in current practice in the real world. The study is a combination of both descriptive and exploratory studies.

The research was planned to carry out on data gathered through few real-life situations and analysing the data such as views of team members of those projects. Accordingly, knowledge was socially constructed, subjective and has a possibility to change according to sample used. Thus, according to Saunders et al. (2009) characteristics, the research philosophy in this study is more towards interpretivism.

3.2. Research approach

The research approach refers to the approach, which has been adopted in conducting the study. There are three types of approaches, which can be used in conducting a research as qualitative approach, quantitative approach and combination of qualitative and quantitative approach (Saunders et al., 2009). Quantitative approach is focused in collecting numerical data while qualitative approach focused collecting non numerical data. This study was focussed on study the in-depth to discover the real-life scenario of current practice. Hence, the data collected through the study was in non-numerical form. Thus, among the three research approaches, qualitative approach has been selected to conduct the study.

3.3. Research strategy

Experiment, survey, case study, action research, grounded theory, ethnography and archival research are the different types of research strategies which can be used to answer the research problem(s) (Yin, 2003; Saunders et al., 2009). Further, Saunders et al., (2009) explains, according to research question, objectives, the extent of existing knowledge, the available time and other resources, the research strategy has to be selected.

According to Saunders et al. (2009), among the research strategies often used, case study is the strategy generally applies for interpretivism research philosophy. Yin (2004) further explains in order to answer a ‘how’ or ‘why’ question case study is the most suitable strategy, which has the ability to conduct an in-depth investigation to explore or describe a real-life environment. Accordingly, case study research strategy is selected to carry out this study.

The study was carried out in two stages. As the first, it was assessed the issues and failure occurred in each step in the construction adjudication process in Sri Lankan construction industry. Once the issues have been identified through the case studies,

interview survey had been carried out with industry experts in the field of adjudication to provide recommendations in order to overcome aforesaid significant issues identified.

3.3.1. Case selection

Adjudication cases concluded within five years' time in foreign funded road development project, in which the contract amount is over 250 million, has been selected as the cases for the study.

The research was focused to study a specific situation in-depth to understand the reality behind it and how to improve current practice. Therefore, qualitative data collected based on non-probability (judgemental), purposive sampling with an appropriate focus on extreme case and heterogeneous cases for the study (Saunders et al., 2009).

When using case study research strategy, informative small number of samples selected which enable to answer research question and to meet objectives of the study (Saunders et al., 2009). Project used adjudication to resolve their disputes is not a unique incident or a representative case for typical cases. Therefore, single-case study cannot applicable for this study and it is decided to carry out multiple-case study (Yin, 2004).

Four numbers of cases have been selected including one case which adjudication used successfully as an interim dispute resolution mechanism. The case, which successfully met with objectives of the adjudication was named as "Case A" and other three cases were named "Case B", "Case C" and "Case D", for which adjudication used but not met its objectives. Thus, cases A, B, C and D were selected in respect of cover both success and unsuccessful scenarios in order to identify steps need to be improved.

3.3.2. Expert Interviews

Intention of the expert interviews was to obtain the recommendations to overcome the issues which identified as significant failure factors of the construction adjudication process as interim dispute resolution mechanism in Sri Lankan construction industry through case studies. Accordingly, three interviews industry experts in the field of adjudication had been carried out to obtain the recommendations to overcome.

3.3.3. Unit of analysis

The first stage of the study is focused to study in-depth to understand the reality behind actual adjudication practice. Thus, the unit of analysis of the first stage of data collection was, adjudication case which used as dispute resolution mechanism to resolve disputes in a construction project. Further, unit of analysis of the second stage of data collection was the academically and professionally qualified industry practitioners who has over ten years' experience in dispute adjudication.

3.4. Research techniques

Under the research techniques, data collection and data analysis techniques are being discussed.

3.4.1. Data collection techniques

Data collected using interview survey and documentary survey. Two numbers of semi-structured interviews conducted to identify success and failure factors of each selected case. Another three numbers of semi-structured interviews were carried out to identify recommendations to overcome identified drawbacks. Thus, data gathered through interview survey was the main source of primary data.

The interviewees for case study were selected, consists of key participants of the adjudication process, who represented the contractor and the employer. Both academically and professionally qualified professionals, who have more than fifteen years of experience in the field of construction and experts in their subject area, has selected as interviewees of case study. Three interviewees were selected as experts in dispute adjudication, who has more than eighteen years of experience in the field of construction and more than ten years of experience in dispute adjudication.

The semi-structured interview guidelines were prepared before and sent to the interviewees in advance since it helped them to be prepared with the responses. During the interviews, theoretical concepts were briefly explained as an informal conversation to improve the flexibility of the interview and to enable relevant data gathering with more accuracy. Questions asked in different ways to get same answer with the intention of increasing the reliability of the information. Thus, using different sources were important in double-checking and verifying information collected. Further, it increases the validity of data.

Information collected using documentary survey was based on observations made on contract documents, contractual correspondence, adjudication submissions, adjudication decision and other relevant documents. This helped to obtain background information about the selected cases and reduced the amount of primary information, which need to be collected through interview survey. Further, information collected via documentary survey is used to develop questions to get answered through interview survey in the case study. The expert interviews were arranged according to the results obtain via case study.

3.4.2. Data analysis technique

Data produced from both documentary survey and interview survey were qualitative data relevant to selected cases and experts' viewpoints. Content analysis is a widely used data analysis technique for qualitative research (Hsieh & Shannon, 2005). Thus,

content analysis was used as the basic data analysis technique of this study. Recorded data in the semi-structured interviews were used to develop the interview transcripts. Manual content analysis was used to capture the significant findings from the transcripts and present the interpretations.

3.5. Research Process

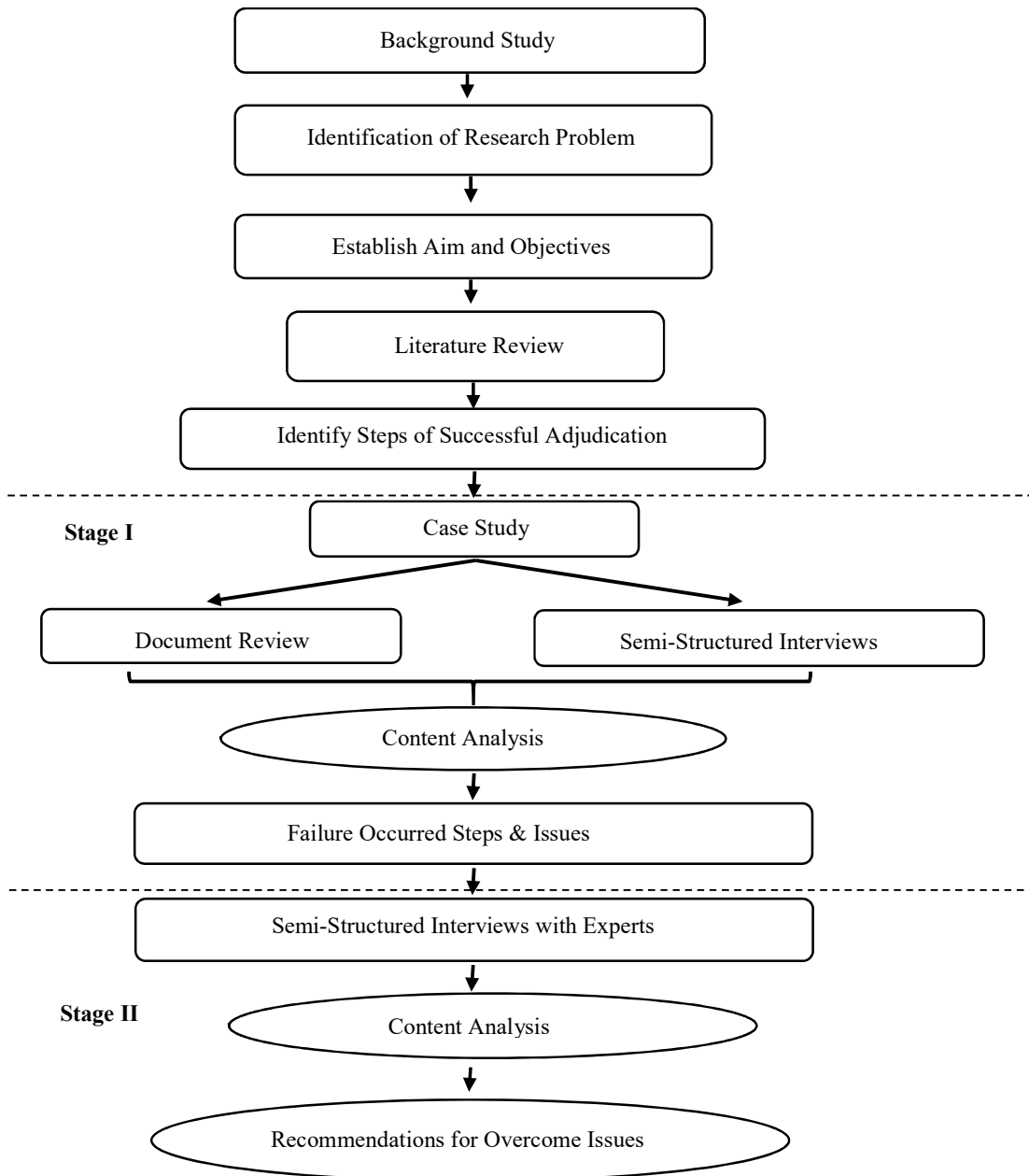


Figure 3.1: Research process

3.6. Summary

The chapter three discussed the methodology of research, carried out with justifications. Case study research strategy was selected based on the established research philosophy, while the qualitative data collected using two techniques that is documentary survey and semi-structured interviews. The data produced has analysed through content analysis manually. The methodology explained has followed in order to achieve the aim of this study.

4. DATA ANALYSIS AND RESEARCH FINDINGS

Four numbers of dispute adjudication in foreign funded road projects were selected as cases, including both success and unsuccessful scenarios.

Intension of chapter four is presenting data analysis of case study and expert survey and explaining the research findings of data analysis. Primary data was collected through an interview survey and secondary data was collected through a documentary survey, which was relevant to each case.

Purpose of the documentary survey was to collect background information about the selected case. The survey was based on the observation made on the contract documents, contractual correspondence, correspondence related to dispute resolution process.

4.1. Selected cases

Details of selected cases are briefly described including project details, details of the dispute which referred to adjudication, details related to adjudication stages, adjudication decision and final dispute resolution made (if any).

4.1.1. Case profile

General project details of selected cases identified in secondary data collection made via documentary survey and presented in Table 4.1 as follows.

Details of dispute which referred to adjudication, special features observed in adjudication process and final resolution of dispute is summarised and presented in Table 4.2.

Table 4.1: Project details of selected cases

	<u>Case A</u>	<u>Case B</u>	<u>Case C</u>	<u>Case D</u>
Project	Construction of a provincial road (6km)	Rehabilitation and improvement of grade B road (20 km)	Rehabilitation and improvement of provincial road (14km)	Construction of a provincial road (11 km)
Employer	State council	State council	State council	State council
Contractor	Local (CIDA grading C1)	Local (CIDA grading C1)	Local (CIDA grading C1)	Local (CIDA grading C1)
Engineer	Local joint venture	International - Local joint venture	State Sector Organization	International Organization
General Conditions of Contract	FIDICMDB Harmonized edition 2006	FIDICMDB Harmonized edition 2006	ICTAD/SBD/02	FIDICMDB Harmonized edition 2010
Particular Conditions for Adjudication	Sole adjudicator	Sole adjudicator	No	Sole adjudicator. Sub-Clause 20.8 [<i>Expiry of Dispute Board's Appointment</i>] was deleted.
Accepted Contract Amount	SLR 270 million	SLR 764 million	SLR425 million	SLR 398 million
Time for Completion	540 days	730 days	607 days	542 days

Table 4.2: Dispute, adjudication process and final resolution

	<u>Case A</u>	<u>Case B</u>	<u>Case C</u>	<u>Case D</u>
Dispute	09 disputes mainly consist of two types, (1) interpretation of two contractual provisions and (2) associated cost based on the said contractual interpretation. 43 days of EOT and additional cost of SLR 28 million.	Dispute mainly consists of 736 days EOT and SLR.730 million additional costs due to one claim event and its resulting causes. Engineer was silent and the Contractor referred the matter to DB. The Engineer grants 302 days after referring to DB.	Dispute was SLR 68 million additional costs due to recommended EOT including prolongation cost and other associate cost of EOT.	Dispute mainly consist of (1) interpretation of contractual provisions (2)63 days extension of Time for Completion, and (3) SLR.320 million additional cost for rate revision due to dispute 1, prolongation cost for the Engineer granted 212 days EOT, prolongation cost for 63 days EOT (dispute 2), and acceleration cost.
Appointment of adjudicator	DB member was jointly appointed by the parties upon the Contractor's proposal before reaches to mid of original Contract period.	DB member was jointly appointed by the parties at the beginning of the project. However, DB member resigned and new member appointed few months before the referred dispute arose.	Due to disagreement of the Parties appointment done by the CIDA after dispute takes place.	DB member was jointly appointed by the parties upon the Contractor's proposal in emerge of dispute.

	<u>Case A</u>	<u>Case B</u>	<u>Case C</u>	<u>Case D</u>
Referring dispute to adjudication	After completion of the project within defects notification period	At expected EOT period, before completion of the project	After completion of the project within defects notification period	At expected EOT period, before completion of the project
Time given for adjudicator	DB has provided its decision by 84th day which is within stipulated period agreed (84 days)	DB has divided to divided dispute into 2 parts, i.e. (1) EOT and (2) additional cost. It is agreed to provide decision for part 1 within original stipulated period given in Contract (84 days). DB member requested additional time to decide part 2 and parties agreed (150 days).	Contract fixed 28 days. DB has requested additional time to deliver its decision and parties agreed (75 days)	DB has requested additional time to deliver its decision and parties agreed (120 days)
Any experts required or requesting any further submissions	No	Further submissions requested by DB on clarifications for part 2.	Further submissions requested by DB on clarifications.	Further submissions requested by DB on clarifications.

	<u>Case A</u>	<u>Case B</u>	<u>Case C</u>	<u>Case D</u>
Decision	<p>Decision consists with detailed reasons on which grounds each and every dispute determined and basis of quantifications done.</p> <p>Thus it is decided 43 days of EOT and additional cost of SLR 7 million.</p>	<p>Both decisions were not reasoned on which grounds each and every section analysed.</p> <p>Part 1: up held the Engineer's determination of 302 days of EOT.</p> <p>Part 2: in principally determined some cost elements claimed but not quantified and no additional cost decided.</p>	<p>Decision consists with detailed reasons on which grounds each and every dispute determined and basis of quantifications done.</p> <p>Decided that the Contractor entitled for SLR 40 million.</p>	<p>Decision consists with detailed reasons on which grounds each and every dispute determined and basis of quantifications done.</p> <p>Decision consists of (1) interpretation of contractual provisions (2) 63 days extension of Time for Completion, and (3) SLR.145 million additional cost for rate revision due to interpretation (1) prolongation cost the Engineer granted 212 days EOT, prolongation cost for 63 days EOT (2).</p> <p>Due to complexities, DB has not decided acceleration cost entitled. It is given that it is advised to settle amicably between Parties.</p>

Case A

This dispute adjudication was carried out between a state council and CIDA grade C1 contractor in a project, which was implemented to construct 6 Km long provincial roads. The adjudicator was jointly appointed by the Parties before reaches to mid of original Contract period. The dispute was referred to the adjudication after practical completion of the project but within defects notification period. Nine disputes were referred to adjudication based on interpretation of two contractual provisions and associated cost based on the said contractual interpretation. The adjudicator, based on the content of the adjudication referral, has requested an extension of time for the time given for adjudicator in the Contract. Parties have given extension, but the adjudicator was able to deliver his decision within the original period. Decision consists with detailed reasons on which grounds each and every dispute determined and basis of quantifications done. Party has not given dissatisfaction for the DB decision and the Employer has given effect to it within reasonable time.

Case B

The adjudicated dispute arose in a rehabilitation and improvement of grade B road (20 km) between a state council and CIDA grade C1 contractor. The adjudicator was appointed jointly few months before the referred dispute arose. The dispute was referred to adjudication at the expected EOT period, before completion of the project. The dispute was mainly consists of EOT and additional costs due to single claim event, that is, huge increment of quantities in the Contract bill of quantities, and its resulting causes. Adjudicator has divided dispute into two parts, i.e. (1) EOT and (2) additional cost and agreed to provide decision for part one within original stipulated period given in the Contract. Adjudicator has requested additional time to decide part two and parties agreed. However, for part 1 the adjudicator up held the Engineer's determination of 302 days of EOT without reasoning, and for part 2 the adjudicator in principally determined some cost elements claimed, but has not quantified or additional cost decided. The Contractor sent his dissatisfaction for the adjudication decision and referred matter to arbitration. Arbitration award was 542 days of

extension and additional cost of SLR 472 million plus interest. Award was upheld by the Court.

Case C

The dispute referred to adjudication was based on the recommended EOT. The dispute arose between state council and CIDA grade C1 contractor in a rehabilitate and improvement of 14 Km provincial road project. Due to disagreement of the Parties, appointment was done by the CIDA after dispute has taken place. The dispute was referred to adjudication after the practical completion of the project, but within defects notification period. Adjudicator has requested additional time to deliver his decision and Parties have agreed to given additional time. Adjudicator has delivered his decision within the agreed period and the decision was consisted with detailed reasoning on which grounds each and every dispute determined and basis of quantifications done. The Employer sent his dissatisfaction for the decision and kept silent. The Contractor referred matter to arbitration.

Case D

The disputed event arose between State council and CIDA grade C1 contractor in a project of construction of 11 km long provincial road. The Adjudicator was jointly appointed by the Parties upon the Contractor's proposal in emerge of the dispute, that is expected EOT period before the completion of the project. The adjudication was based on the dispute, mainly consist of (1) interpretation of contractual provisions (2) extension of Time for Completion, and (3) additional cost for rate revision due to dispute 1, prolongation cost for the Engineer granted EOT, prolongation cost for EOT (dispute 2), and cost of acceleration. Parties have agreed to given an extension to the adjudicator as the adjudicator has requested additional time to deliver his decision. Adjudicator has given his decision to the dispute, except to the acceleration cost entitled, due to its' complexity and advised to settle amicably between the Parties.

The Employer sent his dissatisfaction for the decision and the Contractor referred matter to arbitration. During the arbitration, the employer refers the adjudication

decision to an expert, a neutral third party, to review the decision. The Parties came to an agreement based on expert's recommendations and settlement award was made.

4.2. Findings from case study analysis

Analysis aimed to identify why adjudication failed and how it succeeded in achieving objectives of adjudication effectively as an interim dispute resolution mechanism in Sri Lankan context.

Case study analysis consists of both, "within case analysis" and "cross case analysis". In "within case analysis", the response of the participants of each party is being analysed, while in "cross case analysis" the similarities and differences of the selected cases are being compared. The intention of using both of these methods was to identify, how did these identified steps used in conducting adjudication successfully and what were the reasons behind the failure in respect of failed cases in failed steps.

4.2.1. Step 1: Establishing right to adjudicate

In case A, which was the case, where adjudication has been successfully completed, the contractor's representative has identified that establishment of right to adjudicate has helped to make adjudication successful. He explained that "*although the project has completed at that time, we have preference to refer the dispute to get resolved quickly, since we were at difficult financial situation*". Further, he stated that "*clearly established right to adjudication as the first layer in dispute resolution mechanism was the base behind this success*". The employer's representative in case A, explained that "*we had no intention to drag the issue by selecting time consuming procedure as arbitration and it was facilitated by clearly established right to adjudicate in contract which enables commencing of adjudication process without any issue*". Accordingly, clear establishment of right to adjudicate, which is confirmed in document A1, is one of success factor behind the success of the adjudication in case A.

In case B, both party representatives explained that there was no issue in establishment of right to adjudicate in terms of contract. Further, the contractor’s representative’s statement in case B, which is “*this case was referred to adjudication as 1st ADR method established in the contract*”, clearly shows that right to adjudicate has established and it was not a failure fact for case B. This was confirmed by document B1.

In case C, contractor’s representative explained that “*we had faced no problem regarding right to adjudicate*”. Further, the employer’s representative explanation, “*standard clauses in general conditions were not amended and right to adjudicate was clear*”, revealed that establishment of right to adjudicate was not a reason behind the failure of adjudication. Thus, both party representative’s in case C agreed that there was no issue in establishment of right to adjudicate. This was confirmed by study of document C1.

Both party representatives in case D agreed that, the establishment of right to adjudicate was clearly established in the contract. This was confirmed by the contractor’s representative’s statement, “*right to adjudicate was well established in the Contract*” and the employer’s representative’s explanation, “*...was based on FIDIC GCC, which was clearly established refer disputes to adjudicator as the first attempt to resolve*”. Further, this was confirmed by the documents of D1.

The findings of the analysis are summarised and presented in Table 4.3

Table 4.3: Success factors of establishing right to adjudicate

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Established right to adjudicate in contract	√	√	√	√		√	√	√

E - Employer C - Contractor

In all four selected cases, adjudication processes were successfully carried out at step 1. According to all the party representatives of all failed cases, namely case B, C and D, it does not identify that step 1, establishing right to adjudicate, as a reason behind the un-success of the adjudication.

Accordingly, it was established that step 1, establishing right to adjudication has not contributed to failure of using adjudication as an interim dispute resolution mechanism.

4.2.2. Step 2: Selecting dispute to adjudicate

In case A, both party representatives have pointed out that the selection of dispute was correctly done and it was a reason behind success of adjudication. The fact was directly stated by the employer’s representative as, *“there were several disputes but those come through only two bases. It is limited to interpretation of two contractual provisions and its associated costs”*. Further, the contractor’s representative explained that *“none of disputes having any severe or complex issue which required more time”*. This is further confirmed by A2 document. It is evident that nature of disputes referring to adjudication has impact over successful completion of adjudication.

The findings of the analysis are summarised and presented in Table 4.4

Table 4.4: Success factors in selecting dispute to adjudicate

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
No severe, extra ordinary or complex issue		√						

E - Employer C - Contractor

The contractor’s representative in case B, established his view through the statement, *“claim was based on huge increment of BOQ quantities. Other than that, the claim has not contained any serious matters as legal issues”* and it was confirmed by document

B2. Further, he established, “*although claim is considerably big in term of EOT and cost claimed, the dispute was possible in resolving via adjudication*”. Thus, the contractor’s representative’s explanation revealed that, selecting dispute to adjudicate has not been a reason for the failure of case B. However, the employer’s representative elaborates that claiming several claim events together creates this failure and he further stated that “*it is known fact that each claim needs to refer to the separated adjudication*”. Further, both party representatives pointed out that the adjudicator has not successfully managed the situation of submitting a considerably large claim. While the employer’s representative showed that the “*adjudicator has not requested to refer each dispute separately*” and this was confirmed by B5 and B6. The contractor’s representative pointed out that since parties were flexible “*with modification to the agreed adjudication procedure, the adjudicator should have capability in managing situation*”. Accordingly, it is clearly established that nature of dispute was not a reason behind the failure of adjudication of case B.

Both party representatives in case C, explained that there were no any complex issues, which required external support and additional time. This was confirmed by documentary review C2. Further, case C was successful at the step 2 and it has been identified that selecting dispute to adjudicate in case C has helped to carry out their adjudication successfully up to receiving adjudicator’s decision.

In case D, parties have not agreed totally to the fact that, the disputes were correctly selected. Both parties have agreed to the fact that, part of the dispute selection was correct. This was evident by the employer’s representative statement “*but the second one was quite massive one... It cannot be decided in the same adjudication*”. This was confirmed by the contractor’s statement that “*actually this was at the end of the project and claim was consist of all disputes accumulated*” and “*as per conditions of contract whatever dispute we has to first instant refer to adjudication and we have no other option*”. This was further elaborated by the employer representative’s statement that the adjudicator has “*request parties to come to an amicable settlement for the balance part*”, since “*the reaming part was complex to decide within given time*” which was

confirmed by D7 of documentary review. Accordingly, it showed that the adjudication partly failed at the step 2 due to wrong selection of the dispute.

The findings of the analysis are summarised and presented in Table 4.5

Table 4.5: Issues in selecting dispute to adjudicate

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
As per the contract has any dispute to first instant refer to adjudication								√
Several disputes refer to same adjudication			√			√	√	√
Severe, extra ordinary or complex issue		√		√	√	√	√	
Content of the claim which leads to dispute considerably large				√			√	

E - Employer C - Contractor

Case A and C revealed that the correct dispute selection was one of key factor behind its success. However, case B and D revealed that, even a wrong selection of dispute to adjudicate can be manage without leading whole adjudication process into failure.

With party autonomy to regulate the contract and capabilities of adjudicator, this step can be managed effectively. However, it is clear that fitting same time frame to all disputes can lead the adjudication to fail, in case parties not corporate. Therefore, it is identified that, there should be opportunity to adjudicator to go for reasonable time schedule as appropriate for the dispute, other than stick in to predetermined time allocation.

The findings of the analysis are summarised and presented in Table 4.6

Table 4.6: Action taken to overcome issues in selecting dispute to adjudicate

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Issues overcome successfully and manage effectively with								
Mutual agreement of the parties	√	√	√	√	√	√	√	√
Capabilities of adjudicator				√			√	

E - Employer C - Contractor

4.2.3. Step 3: Selecting adjudicators

The adjudicator in the case A was jointly appointed by the parties based on the contractor’s proposal and agreement of the employer. The contractor’s representative explained that *“we had use our experience to nominate those adjudicators,...all proposed adjudicators were well experienced and had sound knowledge in contractual terms and conditions to determine our issues”* and the employer’s representative confirmed that *“selecting a suitable and capable adjudicator was big step we kept for the success of the adjudication”*.

The contractor’s representative in case B pointed out that *“we didn’t have any criteria other than adjudicator’s educational qualifications”* and *“we were unable to identify his capacity in evaluating such a big claim”*. This was confirmed by the employer’s representative stating that *“capabilities of adjudicator shall be exposed... in Sri Lanka there is no such mechanism and I think it is a main reason behind this failure”*. This clearly shows adjudicator selection by the parties based on their own experience led the adjudication fail. Further, as per the response of the contractor representative in case B, it can be clearly understood that, adjudication selection was done without knowing the capacity of the adjudicator. The fact was clearly stated in the response *“we just select a highly qualified adjudicator whose name in CIDA adjudicators list. We didn’t know his adjudication background due to confidentiality in ADR process”*. Further, both party representatives were agreed to the fact that the selected adjudicator was not a suitable person for their dispute. The contractor’s statement *“at the end of*

the process we had good reasons to believe that selected adjudicator not suitable for this dispute”, provides a clear evident to prove the aforesaid fact. Further, the employer confirmed by stating that *“after looking in to the arbitration award, we felt that the selected adjudicator has not properly reviewed our case...we have been misled by the adjudicator's explanation given in his decision”*. Therefore, the employer has evident that *“the selection of adjudicator had led to failure of adjudication”*. This was confirmed by documents DB decision (B7) and arbitration award (B9).

The contractor’s representative in case C has stated that the *“selection was done by the nominating authority”* and *“we have no control over selection”*. However, he further stated that *“adjudicator was highly qualified and show his capability in determination the case... he satisfactory handle the case”*. The employer’s representative also had no concern in selection of adjudicator. It was confirmed by his explanation *“we are satisfied with the performance of the adjudicator”*. Thus, above confirmed that the selecting of an adjudicator was not a reason behind the failure in adjudication.

In case D, the contractor’s representative explains that *“we have proposed adjudicators who have good previous records”* and he has raised a drawback in selecting mechanism as the selection was *“based on our personal experience since there are no other proper mechanism to do this”*. The employer’s representative has also explained that personal experiences was a selection mechanism for them to select the adjudicator. This was confirmed by his statement *“we know he was very well experienced and competent on duty”*. Thus, it was confirmed that both representatives used their previous experiences to select the adjudicator.

The findings of the analysis are summarised and presented in Table 4.7

Table 4.7: Issues in selecting an adjudicator

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
No proper mechanism to select an adjudicator			√	√				√
Use personal experience to nominate adjudicator		√					√	√
Select based on adjudicator's educational qualifications				√				
Not selecting a suitable and capable adjudicator	√		√	√	√	√	√	√
Didn't know adjudicator's adjudication background				√				
Randomly selecting an adjudicator from a published list				√				

E - Employer C - Contractor

In both case C and D, party representatives stated that, the selecting of an adjudicator is a success fact in carrying out adjudication up to later stage. Both case C and D were successfully passed the step 3, which shows proper selection of an adjudicator was a key fact behind the success. Further, both parties were satisfied with the selection of the adjudicator. Other than case B, all other cases were successfully conducted up to or beyond the point of receiving the adjudication decision.

In case B, it is clearly evident that wrong selection of an adjudicator led their adjudication to the failure. Further, party representatives exposed that, there is no proper mechanism to select adjudicators other than their own experience or blindly trust the nominating authority. Thus, selecting a proper adjudicator is identified as a key success fact in these cases.

4.2.4. Step 4: Appointment of adjudicators

The appointment of an adjudicator in case A was done jointly by the mutual agreement. It was confirmed by the contractor representative's explanation "... *adjudicator was selected jointly from the parties*", employer representative's statement "*appointment by the parties*" and document A5. Further, the representatives of the employer explained that mutual appointment help them to appoint a good adjudicator successfully. This was confirmed by the employer representative's explanation, "*appointment by the parties helped to go for better adjudicator*". The representative from the contractor further highlighted that, since the appointment was on mutual agreement, the parties have control over selection, compared to appointment of adjudicator via a nominating body. It was confirmed by his statement, "*better than going for nominating body which we don't have control over selection*".

In case B, appointment was done jointly by the agreement of parties, confirmed by B7, who is in adjudicator's list in CIDA. Even though, the case B has failed, appointment mechanism was not a reason for this failure. This was further confirmed by the contractor's representative's statement, "*we had a friendly environment at the commencement of adjudication process*".

Appointment of the adjudicator in case C was done by the nominating body, since the parties were unable to reach to an agreement on selecting an adjudicator. It was confirmed by the document C8. The contractor representative stated that "*nominating body has proposed a well-qualified adjudicator and we have not seen any problem regarding his appointment*". Further, this was agreed by the employer representative stating that, "*since parties unable to agree, it was done by CIDA and we didn't face any problems with that*".

In case D, appointment of the adjudicator was done through the mutual agreement from the list of Contractor's nominees. It was confirmed by the document D7. Both party representatives stated that, they have mutually appointed an adjudicator, who has

good past records without delay and appointment mechanism was not a reason behind the failure.

The findings of the analysis are summarised and presented in Table 4.8.

Table 4.8: Factors of appointment of an adjudicator

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Mutual appointment helps to had good adjudication process	√	√		√			√	√
Nominating body has proposed a qualified adjudicator					√	√		

E - Employer C - Contractor

Both case A and D, which were successfully conducted up to end and receiving the decision respectively shows that appointment of adjudicator lead to success. All party representatives of both cases confirmed that appointment of the adjudicator with mutual agreement of the parties helped to reach success. This was confirmed by the employer’s representative of case A by stating, “*appointment by the parties helped to go for better adjudicator as per our own experience*” and the contractor’s representative in case D explained that selection was based on their personal experience they had by “*proposed adjudicators who have good previous records*”. Although, case C was successfully conducted up to receiving adjudicator’s decision, the appointment of adjudicator was done by the appointing authority which is beyond the parties’ control. However, it was not identified as a failure fact of adjudication in case C. Further, in case B, even the selection of adjudicator was wrongly done, jointly appointment has not identified as a reason behind the failure of adjudication. This was supported by the fact that the selected adjudicator is a well-qualified professional who was in adjudicators list published by the nominating body. Further, none of representative in all cases has not been identified any direct impact on the result of the outcome. Accordingly, it was clear that in all selected cases the appointment

mechanism, whether it is jointly or by the nominating authority, has not contribute to the success or the failure of adjudication.

4.2.5. Step 5: Fair time to be fix

In case A, although the adjudication completed within the standard time period, at the preliminary meeting as confirmed in document A5, the adjudicator expresses his intention to request an extension of time if required and parties agreed. The contractor's statement "*the adjudicator mentioned that since there were 9 disputes, he might be required additional time period than standard time period given in the Contract*", good evident to the fact that one size not fits all. Further, the employer's representative confirmed this by stating that "*agreeing on extension makes adjudicator feel relax and go in detail to dispute and give fair decision*". Thus, fixing fair time helped to conclude adjudication successfully in case A.

In case B, parties have agreed to give an extension to adjudicator at the preliminary meeting. Both party representatives agreed to that the given standard time period in the contract was not sufficient to evaluate the dispute. This was established by the contractor's explanation "*both parties agreed to give that extension. Thus, fair time has given to adjudicator to determine our case fairly and properly*" and employer's statement "*both the Contractor and we agreed to grant extension which he was requested*". Further, the employer representative mentioned that the adjudicator, at the very beginning, highlighted that the given time period in the contract was not being sufficient him to decide the case. Further, in case B, the adjudicator partly resolved the dispute by reasoning limitation in time schedule without requesting any further extension. This was confirmed by document B7. Both party representatives confirmed that fixing insufficient time for adjudication is not a reason behind the failure since the parties were agreed to give extension but adjudicator had not properly utilised the time given.

Both party representatives in case C agreed to the fact that allocated time period in the contract was not sufficient to give the adjudicator’s decision. It was showed by the contractor representative’s statement “*adjudicator shall give the determination in writing within 28 days or such other period of receipt of a notification of a dispute*”. *This was not reasonable or realistic*”. Further, this was confirmed by document C8, reviewed in case C since the adjudicator had to refer large submission within the shorter period stated in the contract.

In case D, contractor representative explained that “*we accept that evaluation may need considerable time. So, we agreed to give extension*”. Further, the employer representative mentioned that “*I’m quite sure the available time period him to decide the matter not sufficient.*” According to the statements of the both representatives, it is clear that the allocated time to adjudicator was not sufficient for him to decide the case. However, in case D, without requesting extension of time, the adjudicator divided dispute in to two parts and request parties to come to an amicable settlement for one part, while giving decision to other part. Thus, although fixing time for adjudication was unrealistic in this case it had not become a reason for failure of adjudication.

The findings of the analysis are summarised and presented in Table 4.9.

Table 4.9: Issues in fair time to be fix

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Adjudication have to completed within the standard time period	√	√	√	√	√	√	√	√
Not giving fair/ reasonable time to adjudicator to determine	√	√	√	√	√	√	√	√

E - Employer C - Contractor

Although, the contract fixed a time to adjudication, all the party representatives in all cases, stated that in all cases adjudicator requested an additional time period than standard time period given in the contract and the parties agreed to give extension.

Therefore, issue of fixing one standard time for all disputes without considering size of dispute has overcome successfully in selected cases by the parties through concept of party autonomy to regulate the contract.

The findings of the analysis are summarised and presented in Table 4.10

Table 4.10: Action taken to overcome issues in fair time to be fix

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Issues overcome successfully and manage effectively with								
Mutual agreement of the parties	√	√	√	√	√	√	√	√

E - Employer C - Contractor

4.2.6. Step 6: Permitting balance between the parties

Case A was successfully carried out up to receiving adjudicator’s decision. The contractor representatives of case A explained that *“at the very beginning, the adjudicator asks parties to agree on to a tentative adjudication time table. In that rather than allowing equal time period sufficient time allow each party to make their submissions”*. The employer representative added that *“permitting balanced between parties lead to this success”*.

According to the employer representative of case B, failure to permitting balance between parties also led to the failure of the adjudication. He expresses his view by *“we were given very little time to response to the Contractor’s claim. It was not enough. Therefore, our submission was completely based on the Engineer’s evaluation”*. This was defended by the contractor representative’s statement, *“our claim was previously submitted to the Engineer with copy to Employer. So I didn’t think the Employer need more time. Further they have not requested any additional time to respond”*. Thus, it is clear that there was no any failure in permitting balance between parties in case B.

Both party representatives in case C mentioned that, the parties agreed to time table at the very beginning to make each submission. Therefore, parties have not identified any issue in maintaining the balance between the parties in submitting evidences.

Parties in case D agreed that the time allocation for each party was properly done and balanced between parties kept.

The findings of the analysis are summarised and presented in Table 4.11.

Table 4.11: Factors of permitting balanced between the parties

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Rather than allowing equal time period sufficient time allow each party to make their submissions	√	√		√	√	√	√	√

E - Employer C - Contractor

All selected cases successfully passed this step. Hence, it shows in case A, C and D, permitting balance between parties lead to success up to the taking adjudicator’s decision. Further, this step had not been identified as a reason to failure in case B.

4.2.7. Step 7: Giving powers to the adjudicators

The contractor representatives of case A explained that, powers given to the adjudicator via tripartite adjudication agreement and the contract is sufficient to resolve the dispute. It was confirmed by the employer representative stating that, “*not required any further powers*”.

All party representatives in the selected case B confirmed that, giving additional power to the adjudication is not required.

In case C, the employer representative stated that, the adjudicator has requested to do further clarifications. They have submitted clarifications requested and no objections raised by the contractor. This was confirmed by the contractor representative explaining that “*as per general practice the adjudicator is given powers to request any further details*”, which was confirmed by C5 and C6 of documentary review. Accordingly, power given to the adjudicator to call clarifications has led to success of case C up to receiving decision.

Representatives from the case D agreed to the fact that giving additional power to the adjudication is not required.

The findings of the analysis are summarised and presented in Table 4.12.

Table 4.12: Factors of giving powers to the adjudicators

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Adjudicator has given sufficient powers	√	√	√	√		√	√	√

E - Employer C - Contractor

Representatives of case A, B and D agreed that the power granted by the contract is sufficient to resolve the dispute and giving additional power to the adjudicator is not required. Further, in case C it was revealed that as general practice, the adjudicator has given powers to giving conduct adjudication successfully. None of the party representatives in failed cases identified this step as a reason behind the failure.

4.2.8. Step 8: Correction of errors

Since there were no errors found in adjudicator’s decision, this step was not identified as a reason behind the failure, in all failed cases; B, C and D.

Further, no errors found in adjudicator’s decision in case A.

4.2.9. Step 9: Establishing right to review

Step 9 was not applicable to case A, however, all other three cases B, C and D explained the reasons behind the failure of the adjudication in respect of application of this step.

In case B, the contractor representative pointed out that, *“adjudicator's decision completely upturns at the arbitration”* but *“we have to wait more than two and half years' time from the due date of adjudication decision”* for that. This was confirmed by documentary review B7, B9 and B10. Thus, if such review system was established and especially when *“review is done by higher level adjudicator in a published hierarchy of adjudicators, huge time loss would be saved”*. However, the employer's representative stated *“if the contract given provision to review the adjudication decision before going to next stage, we would not been misled and gone to arbitration. Probably we would try to amicably settle the issues based on the reviewed determination”*.

In case C, the contractor representative explained and document C11 confirmed, that *“the employer ultimately agreed to amicably settle the case based on the adjudication decision”*. He has pointed out that the employer's awareness on self-weakness and on the fact that he has no strong case to argue in the arbitration, makes the employer coming to an amicable settlement. Thus, he elaborates *“if a review procedure available, employer's that decision would be taken very early than actually taken”*. The employer representative explained in requirement of reviewing as *“state sector organisation since there is no legislative adjudication in our country, review report might have option us to make management feel employer has to honour the adjudication decision or negotiate based on decision”*.

In case D, the employer representative explained that *“we appoint a third party expert to review the case..... expert clearly mentioned in his report, the contractor was entitle to receive his claim and encourage parties to come to an amicable settlement*

based on his recommendation". This was confirmed by the document D14. Therefore, he further elaborates that *"if there having provision to review, above can happen at much earlier without spent much time and money"*. This was confirmed by the contractor representative *"when arbitration proceeds, they have decided to go for expert review on DB decision. If the contract contain provision to review adjudicator's decision, will helpful to successfully done without dragging almost two years without resolving"*.

The findings of the analysis are summarised and presented in Table 4.13

Table 4.13: Factors of selecting an adjudicator

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
No review system was established	N/A	N/A	√	√			√	√
Identified benefits of review system								
Save huge time loss in settling the dispute				√		√	√	√
Save addition amount occurred							√	
Enable not been misled and gone to arbitration			√					
Enable to amicably settle the issues based on the reviewed determination			√			√	√	√
Make aware on weakness of each party's case						√		
Make management feel has to honour the adjudication decision					√			

E - Employer C - Contractor

According to above statements in case B, C and D, it is clear that employers are looking forward to adjudication decision to be final. Although, it says in sub-clause 20.4 of the contract in case B and D, “the decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award” (FIDIC, 2006, 2010), the employers have no intention to honour an adjudication decision, which have potential to revise next tier of ADR procedure. They are trying to establish right to review, in order to find out whether they can go for final resolution via reviewer’s decision. Accordingly, it is clear that if reviewing of adjudication decision had been established, it will lead to success. Further, it might help to resolve the dispute going beyond its expectations, being the final settlement.

4.2.10. Step 10: Establishing right to enforce and enforcement procedure

Since the adjudicator’s decision given in case A was honoured, this step was not relevant to case A.

There was no decision against the employer to uphold in case B. Therefore, this step was not required in case B.

According to the contractor representative in case C established, there is drawback in drafting general conditions in ICTAD/SBD/02 that is “*way of enforcing an adjudication decision was not addressed properly in the contract. This violates the basic objectives of incorporating adjudication in a dispute resolution process. Also, this creates wasting both money and time on adjudication*”. Further, he described that in “*a situation where the adjudicator's decision was given in favour of the employer, then without any doubt they will honour the decision and deduct any payments done from next IPC. However, when decision is in favour of the contractor, the employer has no any positive approach to honour*”. Thus, he pointed out “*there must be strong contractual and legal provisions to enforce the decision to avoid the employer’s unethical behaviour*”. The employer confirmed that provision given in ICTAD/SBD/02, leads to this failure by stating that, “*we gave dissatisfaction notice*

and as per the contract we don't have to honour the adjudication decision if we dissatisfy". Further, he pointed out since the employer is "a state sector organisation we cannot honour a decision which is not finalised" and "it will take long time to resolve the matter with arbitration, and getting back money will be very hard once it paid". In addition to that, he elaborates, the contractor is looking forward to a final resolution but not to an interim resolution as per his observations, which he explained as "we have notice that the adjudication commences by the contractor after the taking-over. Because at the end of the project since the final account cannot be finalise with non-resolved disputes, they refer the matter to adjudication". Therefore, he established that "we don't think there is necessity to honour an interim decision".

In respect of case D, the contractor's representative established that failure in establishing right to enforce is the "main reason behind the failure in our case". He explained his view by stating that "although contractual provisions are there, since legal provisions not sound in Sri Lankan context, we see it is sort of habit of the employers not to honour to the adjudication decision which gave in favour of the contractor".

The findings of the analysis are summarised and presented in Table 4.14.

Table 4.14: Factors of selecting an adjudicator

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
No proper contractual or legal provision/s established	N/A	N/A	N/A	N/A		√		√
Results of not having provision to enforcement								
Wasting both money and time on adjudication						√		

Findings	Case A		Case B		Case C		Case D	
	E	C	E	C	E	C	E	C
Results of not having provision to enforcement								
If the decision is in favour of the contractor, the employer has no any positive approach to honour						√		
Can lead to employer's unethical behaviour						√		
Don't honour the adjudication decision which dissatisfy					√			
Think there is no necessity to honour an interim decision					√		√	

E - Employer C - Contractor

Step 10 was not applicable to case A and B, but to case C and D. Both party representatives in case C, agreed that content of contractual provisions leads to the failure of the adjudication. Same as in case C, the employer representative of case D elaborates that *“we have observed that the Contractor waits until the last moment to produce his claims which accumulated all disputes within the construction period”*. He explained that, the contractor do not seek an interim solution *“to facilitate the project progress but to cover all loses of their poor management via a claim. So, unless it is final settlement, we are not in position to honour a doubtful decision”*. Further, he agrees with case C employer's view that *“as a government organisation we are unable to pay interim payment without any bonds or guarantee to get payment from the contractor in return in case of final decision got revised”*. He further explained his view by statement, *“Since the contractors are private parties who easily can withdraw from business or can be bankrupt while we are wasting our time on arbitration”*. Therefore, he proposed *“providing a guarantee and fast track arbitration may solve the problem without limiting to establishing legal provisions to enforce a decision”*. Thus, it was clearly identified that, since there are no any legal provisions to addressed, the provisions to enforcement of adjudication decision has to be established.

Identification of contribution of each step towards final outcome cannot be figured out easily, since, the process of adjudication began to fail at different steps and different steps have contributed in different ways towards the final outcome to be “success” or to be “fail”. Results were presented in figure 4.1 as follow.

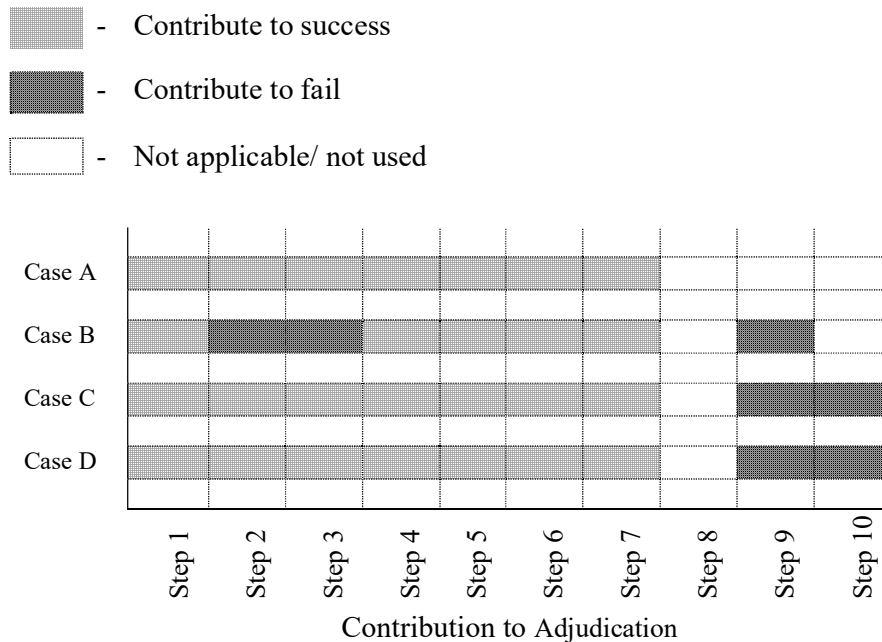


Figure 4.1: Contribute to adjudication

According to analysis shows in figure 4.1, case A has been successfully carried out up to end, which adjudication used successfully as a dispute resolution mechanism. However, it shows step 8 (correction of errors), step 9 (establishing right to review) and step 10 (establishing right to enforce), has not contributed towards success of the adjudication.

Further, survey results illustrated in figure 4.1 shows that failure of adjudication began at different steps in respect of unsuccessful cases, i.e. case B, C and D. Although case B commenced successfully, there is a failure in step 2 (selecting dispute to adjudicate) and 3 (selecting adjudicators). However, step 8 (correction of errors) and step 10 (establishing right to enforce) have not used in case B and cannot be identified, whether contributed to success or failure of adjudication. Case C and D successfully carried out

up to the decision given by the adjudicator. However, step 9 (establishing right to review) and 10 (establishing right to enforce) contribute to failure of the adjudication in both cases C and D. Step 8 (correction of errors) was silent in both cases.

4.3. Summary of case study findings

This section of the chapter is focussed on summarising the findings of the case study where the cases have failed in achieving successful conducting of adjudication and the actions taken to overcome the issues identified. This was summarised and presented in Table 4.15 as below

Table 4.15: Failure factors in selected cases

Step	Issues Identified	Need to Improve?	Action Taken to Overcome the Issues
Step 1: Establishing right to adjudicate	-	No	
Step 2: Selecting dispute to adjudicate	<ul style="list-style-type: none"> ▪ As per the contract has any dispute to first instant refer to adjudication ▪ Several disputes refer to adjudication ▪ Each claim needs to refer to the separated adjudication ▪ Severe, extra ordinary or complex issue ▪ Content of the claim which leads to dispute considerably large 	Yes	<ul style="list-style-type: none"> ▪ Mutual agreement of the parties ▪ Capabilities of adjudicator
Step 3: Selecting adjudicators	<ul style="list-style-type: none"> ▪ No proper mechanism to select an adjudicator ▪ Use personal experience to nominate adjudicator 	Yes	-

Step	Issues Identified	Need to Improve?	Action Taken to Overcome the Issues
Step 3: Selecting adjudicators	<ul style="list-style-type: none"> ▪ Select based on adjudicator's educational qualifications ▪ Not selecting a suitable and capable adjudicator ▪ Didn't know adjudicator's adjudication background ▪ Randomly selecting an adjudicator from a published list 	Yes	-
Step 4: Appointment of adjudicators	-	No	
Step 5: Fair time to be fix	<ul style="list-style-type: none"> ▪ Adjudication have to completed within the standard time period ▪ Not giving fair/ reasonable time to adjudicator to determine 	Yes	<ul style="list-style-type: none"> ▪ Mutual agreement of the parties
Step 6: Permitting balanced between the parties	-	No	

Step	Issues Identified	Need to Improve?	Action Taken to Overcome the Issues
Step 7: Giving powers to the adjudicators	-	No	
Step 8: Correction of errors	-	No	-
Step 9: Establishing right to review	<ul style="list-style-type: none"> ▪ No review system was established 	Yes	-
Step 10: Establishing right to enforce and enforcement procedure	<ul style="list-style-type: none"> ▪ No proper contractual or legal provision/s established 	Yes	-

Step 2 (selecting dispute to adjudicate) was identified as a success fact in case A, but not identified as a failure factor in case B, C and D. However, nature of dispute and possibility in resolving within the given time were identified as issues which have been overcome and managed successfully and effectively with party autonomy to regulate the contract and capabilities of adjudicator. Therefore, it is identified that, there is a necessity to improve the practice in respect of selecting dispute to adjudication.

Although, the adjudication has failed in both cases C and D, step 3 (selecting adjudicators) was not identified as a fact behind their failure. Selecting suitable adjudicators have been identified as a success fact in case A and failure in selecting suitable adjudicators has identified as a failure fact in case B. Accordingly, step 3 is needed to be improved in order to conduct a successful adjudication.

Step 5 (fair time to be fix) was identified as an issue and the parties use party autonomy to regulate the contract to overcome that issue. However, it shall be addressed.

Step 9, establishing right to review, has been identified as a reason behind the failure in adjudication in case B, C and D.

In case C and D, it was clear that failure in step 10 (establishing right to enforce and establishing enforcement procedure) was the reason behind the failure in successfully concluding of adjudication as an interim dispute resolving mechanism.

According to the table 4.15, five steps out of ten, (1) Selecting dispute to adjudicate, (2) Selecting adjudicators, (3) Fair time to be fix (4) Establishing right to review and (5) Establishing right to enforce and enforcement procedure, need to be addressed in order to conduct adjudication successfully to achieve its objective, which is providing interim dispute resolution in order to support progress of project.

4.4. Expert interviews

Three interviews carried out with experts, who involved in construction dispute resolution, in order to gather data on recommendations to improve each step, where failure occurred.

All selected experts, who have provided recommendations are qualified professionals both academically and professionally, with more than eighteen years of industry experience including over ten years in dispute adjudication.

Table 4.16: Details of the expert

Expert	Qualifications		Years of Experience	
	Academic	Professional	Total	In Adjudication
Expert A	BSc Eng (Hons), M.Eng, Dip. Arbitration, ACI Arb	Chartered Engineer	36	16
Expert B	BSc. QS, M.Sc, Dip. Arbitration	Chartered Quantity Surveyor	23	13
Expert C	BSc. QS, MBA, Dip. Adjudication	Chartered Quantity Surveyor	21	11

4.5. Content analysis of expert interviews

Content analysis of expert interviews has been carried out considering the response of the selected industry experts. The intention of expert interviews is to identify how to improve practice of adjudication in order to effectively conduct the adjudication as an interim dispute resolution mechanism.

4.5.1. Selecting dispute to adjudicate

All three experts emphasised that, there shall be selecting mechanism of disputes to refer adjudication. Expert A expressed his view stating that, “*referring disputes which*

are having consequential or irreversible impact, to adjudication is not good". However, both experts B and C stated that irreversible decisions such as extension of time for completion can be used as dispute avoidance mechanism in which parties can amicably settle their dispute based on adjudicators decision. They further stated that, even to use adjudication as both interim dispute resolution and dispute avoidance mechanism, it shall be played its role from the beginning of the project.

4.5.2. Selecting adjudicators

All experts agreed that, there should be a proper mechanism to select suitable adjudicators. Expert C pointed out, *"in Sri Lanka adjudicators are not reviewed or grading"*, while expert B showed, *"we see adjudicators are known by industry practitioners as good or bad. No proper reviewing or grading system for adjudicators"*.

Expert A stated that, *"there should be an institution who regulate and maintain the credibility of adjudicators"*. Both experts B and C stated that, this reviewing and grading shall be done by CIDA as the governing body of adjudication.

4.5.3. Fair time to be fix

Expert A expressed that, *"there shall be provision to decide time frame by considering the nature of the dispute"*.

However expert B and C disagreed with expert A. Expert B stated that, *"aim of the adjudication is helping smooth progress of project. Therefore, fast decision or time bar is most important in adjudication. Otherwise it will be drag"*. He further expressed that *"as I see this matter will not be raised if adjudicator stay in the project from the beginning and only one by one disputes as there are emerged referred to that adjudicator then and there. As I feel for such a practice time frame is sufficient"*.

Expert C explained that *“Parties does not appoint stand-by DB. At the end of the project, after number of disputes cumulate it is submitted to a DB which formed at later stage of project with adjudicators who knows nothing about how project flows. Then they are asked to resolve this massive dispute within given limited time. If it is appointed at early stage then the given time will be more than enough”*.

4.5.4. Establishing right to review

Three experts agreed that, establishing review of adjudicator’s decision is timely required and shall be done by CIDA, as the governing body of adjudication practice. Expert B further explained *“CIDA shall review and categorise adjudicators in to grades. This can be help to improve reliability of adjudication and promote or demote adjudicators as their performance”*. However, expert C further explained that *“this reviewing shall not be done to make or promote DB decision to be final. However, it shall be reviewed to enhance quality of the adjudicators”*. However, all experts agreed that, in order to facilitate the right to review the adjudicator’s decision, contract clause need to be redrafted.

4.5.5. Establishing right to enforce and enforcement procedure

All experts agreed that establishing right to enforce and enforcement procedure is required. Expert A stated that *“the clause shall be redrafted”* and Expert C agreed with that by further stating *“we in Sri Lanka mostly use FIDIC conditions of contract which was drafted by countries who has established statutory adjudication in their legal system. Therefore, the contractual provisions are enough to address that scenario. However, since we don’t have statutory adjudication here in Sri Lanka, we have to redraft that contractual provision more clearly to act as interim dispute resolution mechanism”*.

Expert B added that *“CIDA is empowered by an act. Therefore, CIDA shall inform the state sector organisations to honour the adjudicator's decision which is identified as*

a legal valid document”. Further stated that “usually these contractors are going for the adjudication after accumulating several disputes. Therefore, the adjudicator’s award consists of determinations for several disputes and this can be considerably huge amount. We have seen the employer’s management cannot be convinced to pay such a big amount. I feel that if stand-by adjudicator was there, where disputes can refer to adjudication then and there, there might be possibility to have a positive attitude to honour the adjudicator’s decision from the employer’s side”.

4.5.6. Other recommendations (if any)

Expert A analysed overall issue and has given his expert opinion by stating that, “intension of establishing adjudication is to provide quick interim resolution. Therefore, it is designed to establish stand-by DB who knows how project goes. When dispute arose then they can give decision within limited time with considerable accuracy. However, in Sri Lanka only when it goes to deduct delay damages or prepare statement at completion, contractors commence claiming. Then because of contract forced to go for adjudication in first instant from contract, they form DB there. Therefore, I feel that Parties do not need any interim resolution”.

Further, expert C stated that “problem is due to cost-cutting purpose Parties does not appoint stand-by DB in the project.... only formed at latter stage of project” after cumulate disputes.

Expert B has supported this point, by stating that, “stand-by dispute board is not practicing widely because not appointing the adjudicators at the project commencement. I recommended to add two pay items to BOQ as follows,

<i>Spec Ref</i>	<i>Description</i>	<i>Pay Unit</i>
<i>AAA.1</i>	<i>Stand-by DB</i>	<i>Month</i>
<i>AAA.2</i>	<i>Cost of resolving dispute</i>	<i>PS</i>

I think this will encourage DB practice by overcoming current drawbacks”.

4.6. Summary of expert interviews

Findings of expert interviews are summarized in Table 4.17 as follows.

Table 4.17: Expert suggestions to overcome identified issues

Failure Fact	Recommendations	Expert 1	Expert 2	Expert 3
Selecting dispute to adjudicate	Establishing a proper mechanism	√	√	√
	Promote full-term/stand-by DB		√	√
	Re-draft that contractual provision	√	√	√
Selecting adjudicators	Establishing a proper mechanism	√	√	√
	Establishing procedures to regulate and maintain the credibility of adjudicators	√	√	√
Fair time to be fix	Establishing a proper mechanism	√		
	Promote full-term/stand-by DB		√	√
Establishing right to review	Establishing a proper mechanism	√	√	√
	Re-draft that contractual provision	√	√	√
Establishing right to enforce and enforcement procedure	Establishing a proper mechanism	√	√	√
	Promote full-term/stand-by DB		√	
	Re-draft that contractual provision	√		√
Other recommendations	Promote full-term/stand-by DB	√	√	√

4.7. Summary

Pattern matching was carried out for comparing the theory with the research findings. The aim of the pattern matching was to identify that, how far the theory can be explained through research findings and which theory should be extended based on knowledge explored in respect of dispute adjudication in road construction projects. The comparison was done for the ten steps identified in the literature review as key steps to conduct the adjudication successfully. The result of pattern matching between the theory and research findings of each steps of conducting adjudication successfully are summarized in Table 4.18 as follows.

Table 4.18: Theory verses research findings

Theory	Research Findings	Comments
Step 1: Establishing right to adjudicate		
<p>Establishing right to adjudicate is key fact behind success</p> <ul style="list-style-type: none"> ▪ Parties shall check whether they have right to adjudicate, either given via statute or contract made between parties ▪ In statutory adjudication the parties should check whether they have right to adjudicate as per provisions given in the Act. ▪ In case there is no statute to govern the construction adjudication, it has to empower by the parties by their contract. ▪ There should be well drafted clause or separate agreement between the parties which gives right to refer their matter to adjudication. 	<p>As per findings</p> <ul style="list-style-type: none"> ▪ No statute to govern the construction adjudication in Sri Lanka ▪ There is well drafted clause in contract made between the parties which gives right to refer their matter to adjudication. 	<ul style="list-style-type: none"> ▪ Explain the theory

Theory	Research Findings	Comments
Step 2: Selecting dispute to adjudicate		
<p>To successfully carryout adjudication parties shall select suitable disputes to adjudicate. All disputes are not suitable to refer to adjudication,</p> <ul style="list-style-type: none"> ▪ Disputes which (1) comprise of several issues, (2) involving in complex legal issues, (3) require a decision but the consequences of the decision cannot be reversed (instruction, matters related to quality, entitle to terminate, EOT), and (4) tax matters which the solution or the decision is with some other person or authority are not suitable to be resolved by adjudication. ▪ Adjudication is suitable to resolve relatively small, simple and less complicated disputes. 	<p>As per findings;</p> <ul style="list-style-type: none"> ▪ In all the contracts any dispute to first instant refer to adjudication ▪ It is identified in cases where several disputes refer to adjudication each dispute needs to refer to the adjudication separately ▪ Resolving severe, extra ordinary or complex issue depend on mutual agreement of the parties and capabilities of adjudicator. <p>However, findings show if appointing of DB done from the beginning of the project will help,</p> <ul style="list-style-type: none"> ▪ To refer disputes separate to DB ▪ To resolve complex matters as an interim dispute resolution and dispute avoidance mechanism successfully 	<ul style="list-style-type: none"> ▪ Explain the theory ▪ Explain and extend the theory

Theory	Research Findings	Comments
Step 3: Selecting adjudicators		
<p>Select a suitable adjudicator is vital for success of adjudication and in order to do so,</p> <ul style="list-style-type: none"> ▪ Important data regarding available adjudicators should be maintained and published by a governing body ▪ Grading scale for adjudicators depending on their qualifications, experience and skills, should be maintained ▪ Performance of the adjudicator shall be closely monitored and grade accordingly ▪ A system for train adjudicators 	<p>Research findings shows select a suitable adjudicator is important and in order to do so,</p> <ul style="list-style-type: none"> ▪ Need proper mechanism to select an adjudicator other than using personal experience to nominate adjudicator ▪ Select based on adjudicator's educational and other qualifications ▪ Establishing procedures to regulate and maintain the credibility of adjudicators 	<ul style="list-style-type: none"> ▪ Explain the theory

Theory	Research Findings	Comments
Step 4: Appointment of adjudicators		
<p>Proper appointment of adjudicator is a reason for success. Failures listed in Authorised Nominating Authorities (ANA) leads to unsuccessful outcome from adjudication</p> <ul style="list-style-type: none"> ▪ Profit-driven ANAs are biased towards claimants ▪ Adjudicator shopping ▪ Some ANAs maintain unacceptable relationship with claim preparers 	<p>According to findings, appointment of adjudicators done mutually by the parties or in case where the parties unable to agree, it was done by ANA. No complains done on ANA by the parties.</p> <p>Both appointments made without delay and appointment mechanism was not a reason behind the failure.</p>	<ul style="list-style-type: none"> ▪ Explain the theory

Theory	Research Findings	Comments
Step 5: Fair time to be fix Step		
<p>Literature shows that in order to achieve success in adjudication,</p> <ul style="list-style-type: none"> ▪ It shall not allocate equal time frame to adjudication process irrespective of the complexity of the dispute ▪ It is proposed to have different time frames based on the complexity of the dispute which avoid the danger of “one size fits all” approach 	<p>In research findings</p> <ul style="list-style-type: none"> ▪ In disputes arise at later stages of the project is too complex and some claims consist of large numbers of disputes. Therefore, given time period was not significant. ▪ However, it is identified this matter will not be raised if adjudicator stay in the project from the beginning and only one by one disputes as there are emerged referred to that adjudicator then and there. 	<ul style="list-style-type: none"> ▪ Extend the theory

Theory	Research Findings	Comments
Step 6: Permitting balanced between parties		
<p>To successfully conduct an adjudication process, it is identified that,</p> <ul style="list-style-type: none"> ▪ There shall be procedural fairness, i.e. impartiality and independence of the adjudicator allowing each party to present their defensive arguments and be fairly heard. It is suggesting to permitting balanced between period of time allowing for the referring party and the respondent. 	<p>In research findings,</p> <ul style="list-style-type: none"> ▪ Rather than allowing equal time period sufficient time allow each party to make their submissions which made adjudication success. 	<ul style="list-style-type: none"> ▪ Explain the theory

Theory	Research Findings	Comments
Step 7: Giving powers to the adjudicators		
<p>According to literature,</p> <ul style="list-style-type: none"> ▪ Adjudicators may have inquisitorial powers to engaging experts, receiving & considering oral evidence, request further submissions from the parties or arrange for testing. 	<p>Findings shows,</p> <ul style="list-style-type: none"> ▪ Required powers given to the adjudicator via tripartite adjudication agreement and the contract which is sufficient to resolve the dispute. 	<ul style="list-style-type: none"> ▪ Explain the theory
Step 8: Correction of errors		
<p>Literature shows that to conclude an adjudication successfully,</p> <ul style="list-style-type: none"> ▪ It is proposed to issue draft adjudication decision to parties for their comments prior to formally issue. This would allow correcting obvious straightforward mistakes as arithmetical error, typing error, wrong names of the parties but not be core part of the decision. 	<p>According to research findings,</p> <ul style="list-style-type: none"> ▪ There were no errors found in adjudicator's decision and this was not identified as a reason behind the failure. 	<ul style="list-style-type: none"> ▪ If there was an error this should have considered and correct. Therefore, although it was not tested under case study the step can be identified as required. Explain the theory

Theory	Research Findings	Comments
Step 9: Establishing right to review		
<p>According to literature to achieve successful outcome via adjudication,</p> <ul style="list-style-type: none"> ▪ Merits reviewing system shall be implement which improves the accessibility, certainty, accuracy and increase the confidence in the final outcome, while acting as a safety net. ▪ This will lead to avoiding lengthy and expensive legal proceedings in arbitration or court on the same dispute. ▪ This can be agreed or form process in the contract 	<p>Research findings shows that,</p> <ul style="list-style-type: none"> ▪ If reviewing of adjudication decision had been established, it will lead to success. ▪ Establishing review of adjudicator’s decision is timely required and shall be done by the governing body of adjudication practice. ▪ Governing body shall review and categorise adjudicators in to grades as a result of this review. ▪ In order to facilitate the right to review the adjudicator’s decision, contract clause need to be redrafted. 	<ul style="list-style-type: none"> ▪ Explain the theory

Theory	Research Findings	Comments
Step 10: Establishing right to enforce and enforcement procedure		
<p>Literature established that enforcement of the adjudicator’s decision is critical to the success of adjudication,</p> <ul style="list-style-type: none"> ▪ In absence of statutory adjudication, to enforce a DB decision is to sue other party on basis of breach of contract. To establish contractual rights, a carefully drafted contractual provision for adjudication should be incorporated in the contract. 	<p>Research findings confirm that,</p> <ul style="list-style-type: none"> ▪ In Sri Lanka mostly use FIDIC conditions in foreign funded which was drafted by countries who has established statutory adjudication. Therefore, these contractual provisions are not enough to address Sri Lankan scenario. We have to redraft that contractual provision more clearly to act as interim dispute resolution mechanism. 	<ul style="list-style-type: none"> ▪ Explain the theory

Steps of successful adjudication identified in theory are developed in common to the disputes in all kind of projects in different countries where the statutory provisions available for adjudication. However, the theory was not validated in respect of dispute adjudication in road projects in Sri Lanka where no statutory provisions available for adjudication. The evidence from the research findings shows that the theory is applicable in fully to the studied field but with some modifications to the several steps. Thus, it is identified that theory should be extended to comply with the characteristics of dispute adjudication in road projects where there is no statutory provisions available.

5. CONCLUSION AND RECOMMENDATIONS

The aim of the chapter five is to summarise and conclude the study. Chapter five includes recommendations to improve the performance of adjudication practice as an interim disputes resolution mechanism in Sri Lankan construction industry. This chapter further provides the limitations of the study conducted and future research opportunities to extend the existing body of knowledge.

5.1. Summary of the study

Disputes could happen at any time of the project (Hall, 2002 cited in Assah-Kissiedu, Fugar & Badu, 2010). Traditionally, construction disputes were resolved through either by litigation or arbitration (Safinia, 2014). However, the majority would prefer adjudication as the priority in resolving a dispute before arbitration (Bvumbwe and Thwala, 2011). Further, in Sri Lankan context almost all standard forms of contracts identified necessity of adjudication. However, it is experienced that adjudication in Sri Lanka is continuously fail in achieving its objectives even though adjudication successfully conducted in foreign context. Therefore, the study was focused on answering how to enhance performance of adjudication practice as an interim dispute resolution mechanism in construction projects. Aim of the research was to investigate how to improve the effectiveness of adjudication as an interim mechanism of dispute resolution to Sri Lankan construction projects.

In order to achieve the said aim, theoretical knowledge was identified through analysis and synthesizes of existing body of knowledge. The study was conducted by exploring the steps of a successful adjudication through a comprehensive literature review. The study was conducted based on case study research strategy and qualitative data was collected using document review. Further, semi structured interviews were conducted with professionals, representing each party of all selected cases, to identify how theory was applicable to the studied context. Furthermore, experts were interviewed using semi structured interview guideline to identify how to overcome identified issues and

enhance the current adjudication practice to its expected level. The study was carried out through four objectives and the findings in relation to objectives were analysed to provide an answer to the research problem.

5.2. Conclusion

The first objective, that is identification of concept of construction adjudication and its objectives, were achieved through the literature review based on the existing body of knowledge.

In general terms “adjudication” mean “to give a ruling” or “to judge” a particular matter. But the objectives of construction adjudication are not limited to meaning of the term “adjudication”. Construction adjudication expects to have a fair, inexpensive decision quickly to their dispute, which is immediately binding the parties until revised in next tier of dispute resolution, while progressing the physical work and avoiding damage to relationships between the parties. Accordingly, adjudication can be explained as a process of obtaining an interim decision to a dispute by an independent third party as per the power given by the contract within the stipulated time, which is binding on the parties unless or until revised by next level of ADR mechanism.

Further, the process of adjudication has been described in several stages, which were identified by various researchers. There are seven stages those were brought together. Namely, (1) before the adjudication (2) notice of adjudication, (3) selection and appointment of the adjudicator, (4) referral of the dispute to the adjudication, (5) conduct of the adjudication (6) the adjudication decision and (7) giving effect to adjudication decision.

Second objective of the research was to identify steps to be taken in order to successfully conduct adjudication as an interim dispute resolution mechanism. This was achieved via analysing and synthesis of literature.

Based on the objectives of the adjudication, success of adjudication was identified as fulfilment of (1) obtaining the decision as an interim measure (2) within a limited time stipulated and (3) which shall be binding on both parties, who shall promptly give effect to it, unless and until it shall be revised in next level of ADR mechanism. Various researchers identified several steps in order to conduct adjudication successfully and to obtain the success of adjudication. Those steps were brought together and arranged according to the related stage of the adjudication process. Accordingly, those steps are given as (1) establishing right to adjudicate, (2) selecting dispute to adjudicate, (3) selecting adjudicators, (4) appointment of adjudicators (5) fair time to be fix, (6) permitting balanced between parties, (7) giving powers to the adjudicators, (8) correction of errors, (9) establishing right to review and (10) establishing right to enforce.

The third objective, exploring the issues which have contributed to failure and factors behind the success of adjudication in Sri Lankan context, completely were achieved through conducting documentary survey and interview survey in selected four cases. Out of four cases, one case representing “successfully met with objectives of the adjudication” and other three were representing “adjudication used but not met its objectives”. According to data analysis and research findings, no issues have been identified in step 1: establishing right to adjudicate, step 4: appointment of adjudicators, step 6: permitting balanced between the parties, step 7: giving powers to the adjudicators and step 8: correction of errors, as failure points of conducting adjudication. Hence, it identified that there is no requirement to improve those steps.

However, in five steps out of ten, issues have been identified which needed to be addressed. In step 2: selecting dispute to adjudicate, step 3: selecting adjudicators, step 5: fair time to be fix, step 9: establishing right to review and step 10: establishing right to enforce and enforcement procedure, following issues were identified which need to be addressed in order to conduct adjudication successfully to achieve its intended objective.

Step 2: Selecting dispute to adjudicate

- As per the contract any dispute has to first instant refer to adjudication
- Several disputes refer to adjudication
- Each claim needs to refer to the separated adjudication
- Severe, extra ordinary or complex issue
- Content of the claim which leads to dispute considerably large

Step 3: Selecting adjudicators

- No proper mechanism to select an adjudicator
- Use personal experience to nominate adjudicator
- Select based on adjudicator's educational qualifications
- Not selecting a suitable and capable adjudicator
- Didn't know adjudicator's adjudication background
- Randomly selecting an adjudicator from a published list

Step 5: Fair time to be fix

- Adjudication have to completed within the standard time period
- Not giving fair/ reasonable time to adjudicator to determine

Step 9: Establishing right to review

- No review system was established

Step 10: Establishing right to enforce and enforcement procedure

- No proper contractual or legal provision/s established

In order to achieve the final objective of the research, which is to propose suggestions to overcome identified issues in construction adjudication process, three experts were interviewed.

Accordingly, the steps, in which issues identified as failure fact of adjudication which need to be improved were referred to the experts, who involved in adjudication to find out suggestions to overcome identified failures. Apart from that, the experts were also being requested to make any further suggestion that they may think appropriate to improve the whole process of adjudication.

According to findings of the study including the expert suggestions, it can be summarised that major fact which has been affected to the adjudication in Sri Lanka was, not having a proper way of enforcing the decision obtained from the adjudication. This was because of the unavailability of legal provision in Sri Lanka to govern the adjudication, where most of the other countries who achieved success of adjudication does. Therefore, promptly giving effect to the adjudicator's decision cannot be expected and also purpose of reaching to a settlement within the project period cannot be achieved.

Along with findings of the study, in order to improve effectiveness of dispute adjudication as an interim mechanism of dispute resolution in Sri Lankan construction industry, major concern can be concluded as adopting full-term/stand-by DB from the commencement of projects is required, while providing better contractual provision when drafting the contract and establishing proper mechanisms by the regulating authorities, where it is necessary to address the identified issues.

5.3. Recommendations

Based on the outcomes of the research study, following recommendation can be made as contribution to the knowledge and implementations to the construction industry.

5.3.1. Recommendations to the construction industry

As per research findings, in order to adopt adjudication as an interim dispute resolution mechanism successfully, governing body of construction industry and adjudication should implement the followings,

- Enhance awareness on importance and cost saving of full-term/stand-by DB via CPD programmes.
- Standard Specification shall be amended to facilitate full-term/stand-by DB
- Re-drafting contractual provisions to improve enforceability of adjudication decision.

- Reviewing and grading their adjudicators and increase credibility.

5.3.2. Construction industry practitioners

- Inform state sector organisations to consider adjudication decision is legal and decision shall be binding on both parties.
- The parties shall promptly give effect to it until and unless revised by next step of dispute resolution.

5.4. Contribution to the knowledge

Research findings contribute the body of knowledge in respect of adopting adjudication to countries where no statutory adjudication is in practice. Further, identified its barriers of effective implementation of adopting as interim dispute resolution mechanism and experts' recommendations to overcome such barriers in studied context, within the given limitations.

5.5. Scope and limitations of the research

There are some limitations in generalizing the findings of the study as the study was limited to;

- Foreign funded road improvement projects
- Large scale projects, which Accepted Contract Amount is more than SLR 250 million.

5.6. Further research directions

In order to generalize the findings while overcoming limitations of the study, further research directions were identified as follows;

- The study is limited to foreign funded road development projects, where the employer of the projects were state sector organisations. A study can be carried

out to find out adoptability of dispute adjudication as an interim dispute resolution mechanism in large scale building projects, in which, both the parties are private sector organisations.

- A study can be carried out to determine adoptability of dispute adjudication as an interim dispute resolution mechanism for small scale projects.

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APPENDICES

APPENDIX A: LIST OF DOCUMENTS REVIEWED

Documents reviewed for Case A

- A1 - Contract Document
- A2 - DB referral
- A3 - Statement of response
- A4 -Reply to statement of response
- A5 -DB decision

Documents reviewed for Case B

- B1 - Contract Document
- B2 - DB referral
- B3 - Statement of response
- B4 - Reply to statement of response
- B5 - DB meeting minute 01
- B6 - DB meeting minute 02
- B7 - DB decision
- B8 - Dissatisfaction to decision
- B9 - Arbitration award
- B10 - Court decision

Documents reviewed for Case C

- C1 - Contract Document
- C2 - DB referral
- C3 - Statement of response
- C4 - Reply to statement of response
- C5 - DB meeting minute 01
- C6 - Further submission
- C7 -DB meeting minute 02

- C8 - DB decision
- C9 - Dissatisfaction to decision
- C10-Notice to arbitration
- C11-Agreement of amicable settlement

Documents reviewed for Case D

- D1 - Contract Document
- D2 - DB referral
- D3 - Statement of response
- D4 - Reply to statement of response
- D5 - DB meeting minute 01
- D6 - Further submission
- D7 - DB decision
- D8 - Dissatisfaction to decision
- D9 - Notice to arbitration
- D10 - Arbitration hearing record 01
- D11 -Arbitration hearing record 02
- D12 - Arbitration hearing record 03
- D13 - Arbitration hearing record 04
- D14 - Review of DB decision
- D15 - Settlement award

APPENDIX B: GUIDELINE TO DOCUMENT REVIEW

1.0 General Details

Project	:
Employer	:
Contractor	:
Engineer	:
General Conditions of Contract	:
Particular Conditions for Adjudication	:
Funded by	:

2.0 Scope of Work

Accepted Contract Amount	:
Commencement Date	:
Intended Completion Date	:
Time for Completion	:
Project Taking-Over by the Employer	:

3.0 Claim History of the Project

Claim details	:
Engineer's determination	:

4.0 Adjudication Process

No of adjudicators	:
Adjudicator appointment date	:
Adjudicator appointment by	:
Date of dispute referred to Adjudication	:
Details of dispute	:

Time given for adjudicator :
Any further submissions :
Any experts required :

5.0 Adjudication Decision

Received date :
Decision :
Dissatisfaction Notice given? :
Promptly give effect? :

6.0 Settlement (if any) :

Details

APPENDIX C: INTERVIEW GUIDELINE - CASE STUDY

1.0 General Overview

Case :
 Party represented :
 Designation :
 Qualifications :
 Years of Experience :

Step	Question	Do you think this step helped to make adjudication successful?		Impact of this step in success/ failure of the adjudication?
		Yes	No	
Step 1:	Establishing right to adjudicate			
Step 2:	Selecting dispute to adjudicate			
Step 3:	Selecting an adjudicator			
Step 4:	Appointment of an adjudicator			
Step 5:	Fair time to be fix			
Step 6:	Permitting balanced between parties			
Step 7:	Giving powers to the adjudicators			
Step 8:	Correction of errors			
Step 9:	Establishing right to review			
Step 10:	Establishing right to enforce			

APPENDIX D: INTERVIEW GUIDELINE - EXPERT SURVEY

Designation :

Qualifications :

Years of Experience :

Years of Experience in ADR :

Step	Recommendations to improve this step in order to conduct adjudication successfully?
Selecting dispute to adjudicate	
Selecting an adjudicator	
Fair time to be fix	
Establishing right to review	
Establishing right to enforce	

APPENDIX E: TERMS AND DEFINITIONS

All words started with capital letters are defined as per the General Conditions of Contract in FIDIC 1999 as explained below. Unless otherwise start with capital letter it contains meaning as per the context requires.

“Contract” means agreement made between the Employer and the Contractor in cases A, B, C or D as per the context requires

“Contractor” means the person(s) named as contractor in the Contract in cases A, B, C or D as per the context requires

“Employer” means the person named as employer in the Contract in cases A, B, C or D as per the context requires

“Party” means the Employer or the Contractor

“Time for Completion” means the time for completing the scope of work agreed